

MQPPATSRQK

pG912 (465)	K K - - - F R E T R H P I Y R G V R	Q R R N S G K W V C E V R	80	70	90
pG42 (469)	K K - - - F R E T R H P I Y R G V R	R R N S G K W V C E V R	Q R R N S G K W V C E V R		
pG41 (467)	K K - - - F R E T R H P I Y R G V R	Q R R N S G K W V C E V R	Q R R N S G K W V C E V R		
pG40 (471)	K K - - - F R E T R H P I Y R G V R	Q R R N S G K W V C E V R	Q R R N S G K W V C E V R		
pG1090 (463)	- - - - - Q L S Y R G I R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG867 (461)	- - - - - R K L P S K Y K G V	P Q P N G R W G A Q I Y	P Q P N G R W G A Q I Y		
pG3656-Maize (441)	- - - - - R Q Y R G V R	M R K W G K W V A E I R	M R K W G K W V A E I R		
pG24 (443)	- - - - - K P Y K G I R	M R K W G K W V A E I R	M R K W G K W V A E I R		
pG12 (445)	- - - - - K P Y K G I R	M R K W G K W V A E I R	M R K W G K W V A E I R		
pG1379 (447)	- - - - - R P Y K G I R	M R K W G K W V A E I R	M R K W G K W V A E I R		
pG1277 (449)	- - - - - R P F K G I R	M R K W G K W V A E I R	M R K W G K W V A E I R		
pG872 (431)	- - - - - M Q S K Y K G V R	K R K W G K W V S E I R	K R K W G K W V S E I R		
pG2576 (473)	- - - - - M Q S K Y K G V R	K R K W G K W V S E I R	K R K W G K W V S E I R		
pG3655-rice(jap) (435)	- - - - - E R R K Y K G V R	L R Q W G K W A E I R	L R Q W G K W A E I R		
pG3653-rice(jap) (437)	- - - - - V E R K Y R G V R	L R Q W G K W A E I R	L R Q W G K W A E I R		
pG3652-rice(jap) (439)	- - - - - K E T R Y K G V R	L R Q W G K W A E I R	L R Q W G K W A E I R		
pG3654-rice(jap) (433)	- - - - - T T K Y R G V R	L R K W G K W V S E I R	L R K W G K W V S E I R		
pG47 (2)	- - - - - Q S K Y K G I R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG3645-B_rapa (92)	- - - - - Q S K Y K G I R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG3646-B_oleracea (94)	- - - - - Q A K Y K G I R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG2133 (12)	- - - - - Q S K Y K G I R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG3647-Zinnia elegans (96)	- - - - - Q K T Y K G V R	C R R K W G K W V S E I R	C R R K W G K W V S E I R		
pG3648(partial)- Mt (453)	- - - - - N K K F K G V R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG3643-soy (88)	- - - - - N - K L K G V R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG3651-rice(jap) (100)	- - - - - R C R Y R G V R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG3644-rice(jap) (90)	- - - - - R C R Y R G V R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG3650(partial)- Zm (451)	- - - - - R C R Y R G V R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG3649-rice(jap) (98)	- - - - - M M R Y R G V R	R R K W G K W V S E I R	R R K W G K W V S E I R		
pG3657-rice(jap) (455)	V T T A A A A L A V R P Y K G V R	M R S W G S W V S E I R	M R S W G S W V S E I R		
pG2294 (457)	- - - - - S I R M K K Y K G V R	M R S W G S W V S E I R	M R S W G S W V S E I R		
pG2115 (459)	S C K N K N K S K I K	M R S W G S W V S E I R	M R S W G S W V S E I R		
(675) (676)	. Y K G V R	R . W G K W V S E I R	R . W G K W V S E I R		

FIG. 3C

pG912 (465)	E	P	N	K	K	S	R	I	W	L	G	T	F	P	T	V	E	M	A	A	R	A	H	D	V	A	A	L	L	120	
pG42 (469)	E	P	N	K	K	T	R	I	W	L	G	T	F	Q	T	A	E	M	A	A	R	A	H	D	V	A	A	L	L		
pG41 (467)	E	P	N	K	K	T	R	I	W	L	G	T	F	Q	T	A	E	M	A	A	R	A	H	D	V	A	A	I	A	L	
pG40 (471)	E	P	N	K	K	T	R	I	W	L	G	T	F	Q	T	A	E	M	A	A	R	A	H	D	V	A	A	L	A	L	
pG1090 (463)	E	P	G	K	K	T	R	I	W	L	G	S	Y	E	T	A	E	M	A	A	A	Y	D	A	A	A	L	H	L		
pG867 (461)	E	K	H	-	Q	R	V	W	L	G	T	F	N	E	E	D	E	A	A	R	A	Y	D	V	A	V	H	R	F		
pG3656-Maize (441)	E	P	H	K	R	T	R	P	R	L	R	S	Y	A	T	A	V	A	A	R	A	Y	D	T	A	V	F	Y	L		
pG24 (443)	E	P	N	K	R	S	R	I	W	L	G	S	Y	A	T	P	E	A	A	R	A	Y	D	T	A	V	F	Y	L		
pG12 (445)	E	P	N	K	R	S	R	I	W	L	G	S	Y	S	T	P	E	A	A	R	A	Y	D	T	A	V	F	Y	L		
pG1379 (447)	E	P	N	K	R	S	R	L	W	L	G	S	Y	S	T	P	E	A	A	R	A	Y	D	T	A	V	F	Y	L		
pG1277 (449)	E	P	N	K	R	S	R	L	W	L	G	S	Y	S	T	P	E	A	A	R	A	Y	D	T	A	V	F	Y	L		
pG872 (431)	E	P	N	K	R	S	R	L	W	L	G	S	Y	S	T	P	E	A	A	R	A	Y	D	T	A	V	F	Y	L		
pG2576 (473)	L	P	N	S	R	E	R	I	W	L	G	S	Y	D	T	P	E	K	A	A	R	A	F	D	A	A	Q	F	C	L	
pG3655-rice(jap) (435)	L	P	N	S	R	E	R	I	W	L	G	S	Y	D	T	P	E	K	A	A	R	A	F	D	A	A	L	Y	C	L	
pG3653-rice(jap) (437)	L	P	N	S	C	E	R	I	W	L	G	S	Y	D	T	P	E	K	A	A	R	A	F	D	A	A	F	I	C	L	
pG3652-rice(jap) (439)	L	P	N	S	L	K	R	I	W	L	G	S	Y	D	S	P	E	K	A	A	R	A	F	D	A	A	F	I	C	L	
pG3654-rice(jap) (433)	L	P	N	S	R	K	R	I	W	L	G	S	Y	D	T	P	E	K	A	A	R	A	F	D	A	A	F	I	C	L	
pG47 (2)	V	P	G	T	R	D	R	L	W	L	G	S	F	S	T	A	E	G	A	A	V	A	H	D	V	A	A	F	F	C	L
pG3645-B_rapa (92)	V	P	G	T	R	D	R	L	W	L	G	S	F	S	T	A	E	G	A	A	V	A	H	D	V	A	A	F	F	C	L
pG3646-B_oleracea (94)	V	P	A	T	R	E	R	L	W	L	G	S	F	S	T	A	E	G	A	A	V	A	H	D	V	A	A	F	F	C	L
pG2133 (12)	V	P	G	T	R	Q	R	L	W	L	G	S	F	S	T	A	E	G	A	A	V	A	H	D	V	A	A	F	F	C	L
pG3647-Zinnia_ (96)	V	P	G	T	R	Q	R	L	W	L	G	T	Y	S	T	P	E	G	A	A	V	A	H	D	V	A	A	S	Y	C	L
pG3648(partial)-N Mt (453)	V	P	G	T	Q	E	R	L	W	L	G	T	Y	A	T	P	E	A	A	V	A	H	D	V	A	V	A	F	Y	C	L
pG3643-soy (88)	V	P	G	T	Q	E	R	L	W	L	G	T	Y	A	T	P	E	A	A	V	A	H	D	V	A	V	A	F	Y	C	L
pG3651-rice(jap) (100)	V	P	G	T	R	E	R	L	W	L	G	T	Y	A	T	P	E	A	A	V	A	H	D	T	A	V	Y	F	L		
pG3644-rice(jap) (90)	V	P	G	T	R	E	R	L	W	L	G	S	Y	A	T	P	E	A	A	V	A	H	D	T	A	V	Y	F	L		
pG3650(partial)-Zm (451)	V	P	G	T	R	E	R	L	W	L	G	S	Y	A	T	P	E	A	A	V	A	H	D	T	A	V	Y	F	L		
pG3649-rice(jap) (98)	V	P	G	T	R	E	R	L	W	L	G	S	Y	A	T	P	E	A	A	V	A	H	D	T	A	V	Y	F	L		
pG3657-rice(jap) (455)	V	P	G	T	R	E	R	L	W	L	G	S	Y	A	T	P	E	A	A	V	A	H	D	T	A	V	Y	F	L		
pG2294 (457)	A	P	H	Q	K	R	R	I	W	L	G	S	Y	A	T	P	E	A	A	R	A	Y	D	A	A	L	L	C	L		
pG2115 (459)	A	P	N	Q	K	T	R	I	W	L	G	S	Y	S	T	A	E	A	A	R	A	Y	D	A	A	L	L	C	L		
(677) (678)	. P	. R	. R	I	W	L	G	S	Y	T	P	E	. A	A	R	A	. D	. A	. . C	L											

FIG. 3D

FIG. 3E

FIG. 3E

FIG. 3F

FIG. 3G

pG912 (465)	- T A A E A E E A A G E G - - V R E G E R R A E E - - - - Q	220	230	240
pG42 (469)	- H G F D M E E T L V E A - - I Y T A E - - - - - Q			
pG41 (467)	- H G L D M E E T L V E A - - I Y T P E - - - - - Q			
pG40 (471)	- H G L D M E E T M V E A - - I Y T P E - - - - - Q			
pG1090 (463)	- S G Q G L S R V G L S P - - - D Q - - - - - I Q			
pG867 (461)	T T G F R S A E A L F E K A V T P S D V G K L N R L V I P K			
pG3656-Maize (441)	- H H R E R H R H H N - - - - - - - - - - - - - - -			
pG24 (443)	- - - - - T G G - - - - - E N R G D Y - - - - -			
pG12 (445)	- H H H H Q H Q R G N H D Y V D N H S D Y R I - - - - N			
pG1379 (447)	- R H R V F G Q N R D S D - - V D N K N F H R N Y Q N G E R			
pG1277 (449)	- R R R V F S Q K R D - - - - - - - - - - - - - - -			
pG872 (431)	V P G S E I R P E S - - - - - P S T S - - - - - A			
pG2576 (473)	- A G Y E I R Q E S - - - - - A S T S - - - - - M			
pG3655-rice(jap) (435)	- P A Q V A T E E - - - - - - - - - - - - - - -			
pG3653-rice(jap) (437)	- -			
pG3652-rice(jap) (439)	- E A H S F K K E E E A Q - - V E E K T - - - - - A			
pG3654-rice(jap) (433)	- S A L P W E E A P V V A - - A Q E A A - - - - - A			
pG47 (2)	- - - T S V N S G C G D T - - T T Y Y E - - - - - N			
pG3645-B_rapa (92)	- D H A S G N S G N G D T - - T T A Y C - - - - - E			
pG3646-B_oleracea (94)	- D S A S G G V E E G - - - - - T - - - - - E			
pG2133 (12)	- S - G S G G C E E R S S - - M A N M E - - - - - E			
pG3647-Zinnia_elegans (96)	- D T T P T N E A L N - - - - - - - - - - - - - - -			
pG3648(partial) Mt (453)	- K T S T V G A E T N C E - - S D E R T - - - - - S			
pG3643-soy (88)	- D P A R - P A P A T A Y - - A R P D H - - - - - C			
pG3651-rice(jap) (100)	- D A A P A P A P A T A Y - - A R P D H - - - - - C			
pG3644-rice(jap) (90)	- A A L A S P P V V Q P - - A - - - A - - - - - L			
pG3650(partial)-Zm (451)	- R D H P - P A A A A S - - S S G S G - - - - - V			
pG3649-rice(jap) (98)	E A M S S T P T S G A T S - - L S T L G - - - - - S			
pG3657-rice(jap) (455)	S V S T S S P L L S S - P - - S E D L Y - - - - - D			
pG2294 (457)	S S A V S S P S D H D H H - - H D D G M - - - - - Q			
pG2115 (459)				

FIG. 3H

		250	260	270
pG912 (465)	N	G	G	V
pG42 (469)	S	E	N	A
pG41 (467)	S	Q	D	A
pG40 (471)	S	E	G	A
pG1090 (463)	A	I	N	E
pG867 (461)	H	H	A	E
pG3656-Maize (441)	-	-	-	-
pG24 (443)	E	K	I	E
pG12 (445)	D	D	L	M
pG1379 (447)	E	E	E	E
pG1277 (449)	-	-	-	-
pG872 (431)	S	V	A	T
pG2576 (473)	D	V	D	S
pG3655-rice(jap) (435)	-	-	-	-
pG3653-rice(jap) (437)	-	-	-	-
pG3652-rice(jap) (439)	E	E	S	S
pG3654-rice(jap) (433)	D	M	A	P
pG47 (2)	G	A	D	Q
pG3645-B_rapa (92)	N	G	G	-
pG3646-B_oleracea (94)	R	E	T	-
pG2133 (12)	E	D	K	-
pG3647-Zinnia_elegans (96)	-	-	-	-
pG3648(partial)-Mt (453)	T	A	S	V
pG3643-soy (88)	A	G	A	T
pG3651-rice(jap) (100)	A	G	A	T
pG3644-rice(jap) (90)	A	G	I	Y
pG3650(partial)-Zm (451)	A	G	D	G
pG3649-rice(jap) (98)	S	G	G	D
pG3657-rice(jap) (455)	V	V	S	M
pG2294 (457)	S	L	M	G
pG2115 (459)	S	L	M	G

FIG. 3I

	280	290	300
pG912 (465)	- - - N F F E N M A E G M L L P - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG42 (469)	- - - S L L A N M A E G M L L P - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG41 (467)	- - - S L L D N M A E G M L L P - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG40 (471)	- - - T L L D N M A E G M L L P - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG1090 (463)	- - - M G W M Q D L E V A D Y E E L Y - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG867 (461)	W R F R Y S Y W N S S Q S Y V L T K G W S R F V K - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3656-Maize (441)	- - - - - R V H A E E Q Q E E E E - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG24 (443)	- - - - - K S G N G S L E R V D L - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG12 (445)	- - - - - K R C N G S L E R V D L - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG1379 (447)	- - - - - R S G G R L L D R V D L - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG1277 (449)	- - - - - - F G G G L L E L V D L - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG872 (431)	- - - N F G F D S F S D D F S G F S - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - G G
pG2576 (473)	- - - F P G F D D F S D E Y S G D R - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - F R
pG3655-rice(jap) (435)	- - - A A G S L D W S Q F M A N P P M Y S P T A T A G S Q	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3653-rice(jap) (437)	- - - S G G G D G	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3652-rice(jap) (439)	- - - A G G S F D W S Q L P L Y S P - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3654-rice(jap) (433)	- - - A G S F E Y W S Q Q P L Y S P - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - T A A S L D L Q
pG47 (2)	- - - - - - - - - - - - - - - - E - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3645-B_rapa (92)	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3646-B_oleracea (94)	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG2133 (12)	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3647-Zinnia_elegans (96)	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3648(partial)-Mt (453)	- - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3643-soy (88)	- - - - - W H G S G G D S T E R D - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3651-rice(jap) (100)	- - - - - A H A A G A N A R T S G - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3644-rice(jap) (90)	- - - - - A H A A G A N A R T S G - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3650(partial)-Zm (451)	- - - - - R A G A A K Q R R W Q Q - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3649-rice(jap) (98)	- - - - - N G E D G S R S S S G - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG3657-rice(jap) (455)	D H E L W T E L D A F A S P K F M D	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG2294 (457)	- - - D Q F M F I N G V S A P Y - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -
pG2115 (459)	- - - M F L F D N G A P F N Y S P - - -	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - -

FIG. 3J

pG912 (465)	-	-	-	P	P	E	V	G	W	N	H	N	-	D	F	D	G	V	-	-	G	D	-	-	-	-	V	S	L	W	S	330				
pG42 (469)	-	-	-	L	P	S	V	Q	W	N	H	N	H	E	V	D	G	D	-	-	D	D	D	-	-	-	-	V	S	L	W	S				
pG41 (467)	-	-	-	S	P	S	V	Q	W	N	Y	N	F	D	V	E	G	D	-	-	D	D	-	-	-	-	-	V	S	L	W	S				
pG40 (471)	-	-	-	P	P	S	V	Q	W	N	H	N	Y	D	G	E	G	D	-	-	G	D	-	-	-	-	-	V	S	L	W	S				
pG1090 (463)	-	-	-	-	-	G	Q	F	G	Q	H	D	R	D	E	-	F	F	-	-	E	M	Q	Q	Q	F	Q	S	I	W	N					
pG867 (461)	-	-	-	-	E	K	N	L	R	A	G	D	V	V	S	F	S	R	S	N	G	Q	D	Q	Q	L	Y	I	G	W	K					
pG3656-Maize (441)	-	-	-	-	-	Q	K	P	Q	R	P	A	W	S	G	R	-	-	-	-	-	V	K	N	P	D	L									
pG24 (443)	-	-	-	-	-	N	K	L	P	D	P	E	N	S	D	G	-	-	-	-	-	D	D	D	D	E	C	V	K	R	R					
pG12 (445)	-	-	-	-	-	N	K	L	P	D	P	E	T	S	D	-	-	-	-	-	-	D	D	-	-	-	-	-	-	-	-					
pG1379 (447)	-	-	-	-	-	N	K	L	P	D	P	E	S	S	D	-	-	-	-	-	-	E	E	W	E	S	K	H								
pG1277 (449)	-	-	-	-	-	N	K	L	P	D	P	E	N	L	D	-	-	-	-	-	-	D	D	L	V	G	K									
pG872 (431)	-	-	-	-	-	R	F	T	E	I	L	P	I	E	D	Y	G	E	S	-	-	L	L	D	E	S	L	I	L	W	D					
pG2576 (473)	-	-	-	-	-	E	Q	L	S	P	T	Q	D	Y	Y	Q	L	G	E	E	T	-	-	-	-	Y	A	D	G	S	M	F	L	W	N	
pG3655-rice(jap) (435)	-	-	-	-	-	A	M	W	P	V	T	A	P	A	A	E	A	D	G	E	D	-	-	-	-	D	E	L	A	T	T	C	R	W	S	
pG3653-rice(jap) (437)	-	-	-	-	-	T	T	T	P	A	A	E	H	W	E	E	D	N	V	-	-	E	G	T	T	S	D	N	L	W	S					
pG3652-rice(jap) (439)	-	-	-	-	-	R	W	M	T	A	A	A	E	E	S	I	M	E	D	D	-	-	D	E	G	T	S	D	G	L	W	S				
pG3654-rice(jap) (433)	-	-	-	-	-	-	-	P	L	N	I	S	V	Y	D	Y	L	G	G	-	-	-	H	D	H	V										
pG47 (2)	-	-	-	-	-	-	-	A	L	N	I	S	V	Y	D	Y	L	D	G	-	-	-	H	D	H	V										
pG3645-B_rapa (92)	-	-	-	-	-	-	-	L	N	I	S	V	Y	D	Y	L	D	-	-	-	-	D	G	R	I											
pG3646-B_oleracea (94)	-	-	-	-	-	-	-	L	S	I	S	V	Y	D	Y	L	E	-	-	-	-	D	D	L	V											
pG2133 (12)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
pG3647-Zinnia_elegans (96)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
pG3648(partial)-Mt (453)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
pG3643-soy (88)	-	-	-	-	-	-	-	A	L	S	I	S	I	E	D	Y	L																			
pG3651-rice(jap) (100)	-	-	-	-	-	-	-	E	R	Q	L	V	C	A	E	E	I	S	V	-	-	-	-	-	-	D	D	M	E	I	L	M				
pG3644-rice(jap) (90)	-	-	-	-	-	-	-	E	R	Q	L	V	C	A	E	E	I	S	V	-	-	-	-	-	-	-	D	D	M	E	I	L	M			
pG3650(partial)-Zm (451)	-	-	-	-	-	-	-	Q	Y	V	L	V	H	A	E	Q																				
pG3649-rice(jap) (98)	-	-	-	-	-	-	-	S	E	E	L	I	V	Y	E	G	L	S	V	-	-	-	-	-	-	D	D	M	E	I	L	M				
pG3657-rice(jap) (455)	-	-	-	-	-	-	-	L	M	A	A	G	T	A	F	S	S	P	W	E	E	P	-	E	-	-	E	D	G	E	L	M	R	L	W	S
pG2294 (457)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
pG2115 (459)	-	-	-	-	-	-	-	Q	L	N	S	T	T	M	L	D	E	Y	F	F	E	-	-	-	-	-	-	-	-	-	-	-	-	-		

FIG. 3K

pG912 (465)	F D E	340	350	360
pG42 (469)	Y			
pG41 (467)	Y			
pG40 (471)	Y			
pG1090 (463)	S N N			
pG867 (461)	S R S G S D L D A G R V L R L F G V N I S P E S S R N D V V			
pG3656-Maize (441)				
pG24 (443)				
pG12 (445)				
pG1379 (447)				
pG1277 (449)				
pG872 (431)	F			
pG2576 (473)	F			
pG3655-rice(jap)(435)	F D A			
pG3653-rice(jap)(437)				
pG3652-rice(jap)(439)	F D F			
pG3654-rice(jap)(433)	F H Y S P T R S K W			
pG47 (2)				
pG3645-B_rapa (92)				
pG3646-B_oleracea (94)				
pG2133 (12)				
pG3647-Zinnia_elegans (96)				
pG3648(partial)-Medicago(453)				
pG3643-soy (88)				
pG3651-rice(jap)(100)				
pG3644-rice(jap)(90)				
pG3650(partial)-Maize (451)				
pG3649-rice(jap)(98)				
pG3657-rice(jap)(455)	F C			
pG2294 (457)	F C			
pG2115 (459)	F N			

FIG. 3L

G N K R V N D T E M L S L V C S K K Q R I F H A S

FIG. 3M

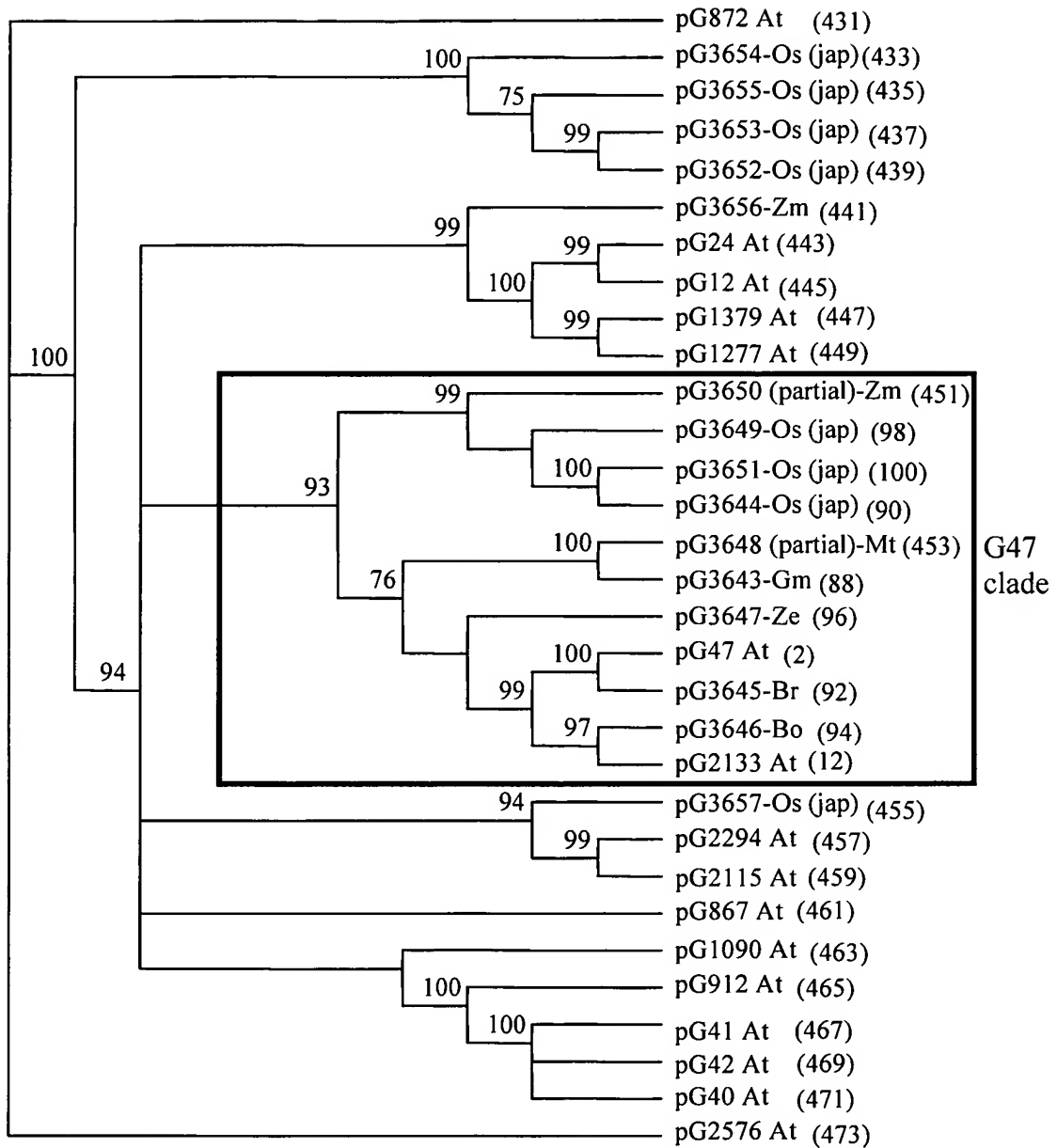


FIG. 4

(466) pG912-AP2dom
 (470) pG42-AP2dom
 (468) pG41-AP2dom
 (472) pG40-AP2dom
 (462) pG867-AP2dom
 (476) pG8-AP2dom2
 (478) pG2-AP2dom2
 (475) pG8-AP2dom1
 (477) pG2-AP2dom1
 (464) pG1090-AP2dom
 (444) pG3656-AP2dom_maize(442)
 (446) pG24-AP2dom
 (446) pG12-AP2dom
 (448) pG1379-AP2dom
 (450) pG1277-AP2dom
 (432) pG872_AP2dom
 (474) pG2576-AP2dom
 (436) pG3655-AP2dom_rice(jap)
 (438) pG3653-AP2dom_rice(jap)
 (440) pG3652-AP2dom_rice(jap)
 (434) pG3654-AP2dom_rice(jap)
 (667) pG47_AP2dom
 (668) pG3645-AP2dom_B_rapa
 (669) pG3646-AP2dom_B_oleracea
 (670) pG2133-AP2dom
 (453) pG3648-AP2dom(Mt)
 (671) pG3643-AP2dom_soy
 (672) pG3647-AP2domZ_elegans
 (673) pG3651-AP2dom_rice(jap)
 (674) pG3644-AP2dom_rice(jap)
 (452) pG3650-AP2dom_maize
 (452) pG3649-AP2dom_rice(jap)
 (456) pG3657-AP2dom_rice(jap)
 (458) pG2294-AP2dom
 (460) pG2115-AP2dom
 (675) (676) (680) (678)

Fig. 5

10 20 30

pG3002 (68)
pG3680_ (114)
pG2991_ (48)
pG2990 (46)
pG2989 (44)
pG2995 (56)
pG2992 (50)
pG3000 (64)
pG3663_ (102)
pG2998 (62)
pG3692_ (124)
pG2999 (14)
pG2994 (54)
pG2993 (52)
pG3683_ (116)
pG2996 (58)
pG3668_ (104)
pG3671_ (108)
pG3674_ (110)
pG3670_ (106)
pG3675_ (112)
pG2997 (60)
pG3690_ (122)
pG3694_ (126)
pG3685_ (118)
pG3686_ (120)
pG3695_ (128)
pG3001_ (66)

M E Y K R S S H V E E E E E E E E D D E E E D E E E Q Q G

FIG. 8A

	40	50	60
pG3002	(68)		
pG3680	(114)		
pG2991	(48)		
pG2990	(46)		
pG2989	(44)		
pG2995	(56)		
pG2992	(50)		
pG3000	(64)		
pG3663	(102)		
pG2998	(62)		
pG3692	(124)		
pG2999	(14)		
pG2994	(54)		
pG2993	(52)		
pG3683	(116)		
pG2996	(58)		
pG3668	(104)		
pG3671	(108)		
pG3674	(110)		
pG3670	(106)		
pG3675	(112)		
pG2997	(60)		
pG3690	(122)		
pG3694	(126)		
pG3685	(118)		
pG3686	(120)		
pG3695	(128)		
pG3001	(66)		
	H H Q Y T T A A Q Q Q Q L H P Q V L G S S A S S P S S L M D		

Year	Percentage (%)
2007	78
2008	80
2009	82
2010	84
2011	86
2012	87
2013	88
2014	88

pG3002	(68)
pG3680 ₋	(114)
pG2991	(48)
pG2990	(46)
pG2989	(44)
pG2995	(56)
pG2992	(50)
pG3000	(64)
pG3663 ₋	(102)
pG2998	(62)
pG3692 ₋	(124)
pG2999	(14)
pG2994	(54)
pG2993	(52)
pG3683 ₋	(116)
pG2996	(58)
pG3668 ₋	(104)
pG3671 ₋	(108)
pG3674 ₋	(110)
pG3670 ₋	(106)
pG3675 ₋	(112)
pG2997	(60)
pG3690 ₋	(122)
pG3694 ₋	(126)
pG3685 ₋	(118)
pG3686 ₋	(120)
pG3695 ₋	(128)
pG3001	(66)

S A A F S R P L L P P N L S L V S P S A A A A A P G G S Y

FIG. 8C

FIG. 8D

130 140 150

pG3002	(68)		M D V I A T T T T I V S D L D S R Q P E I E A
pG3680_	(114)		M M D M T P T I T T T T P T K S P E P E S E T
pG2991	(48)		M L E V R S M D M T P K S P E P E S E T
pG2990	(46)		
pG2989	(44)		M S S L S - K P N R - -
pG2995	(56)		M D L S S - K P Q Q - -
pG2992	(50)		
pG3000	(64)	M E L G G K C N A I T T T T M I S T E V K P H T D P P E P	
pG3663_	(102)	R D S S P S L P S S S D Q P S Q T H T I I F N H P P K L S	
pG2998	(62)	- - N N N G G V V I S N I I S T N I D D N - - - C N G N N N	
pG3692_	(124)		
pG2999	(14)	- - A L D H H R L P Y T Y S Q T A N K E K P T T K R N G S	
pG2994	(54)	- - G G S H G H M I H H H D H H A A N S A - P P T H N N N N	
pG2993	(52)	S - G G G H G N M N H H H A N S A - - - P S S L N I T	
pG3683_	(116)	L P L P M H A A S P Y L G - L H H D H H H G G G G G	
pG2996	(58)	N D E E Q E E D M N L H E E E D D A V Y D S P P L S R V	
pG3668_	(104)	- - - E Q E E E V G I Q L - - - T P G S F D A V G N S G R	
pG3671_	(108)	- - - D G D E E M P P M P - - - V S S S Y E T P P Q H G L	
pG3674_	(110)	- - - D G D E E M P P M P - - - L S S G Y D A P M Q P G L	
pG3670_	(106)	- - - E Q D E E M G I P E S P P V P A S Y D P L L N S A P	
pG3675_	(112)	- - - E E M E M S G A N P - - - - T G G Y D S L S G E G A	
pG2997	(60)	- - - E D M E M S G V N P - - - - P C G Y D S L S G E G A	
pG3690_	(122)	- - - E P A R N G V L G G V A - - - - - G A H A A S T	
pG3694_	(126)		
pG3685_	(118)	- - - E P V D E M G V A Y G R - - - - - T P P S S - -	
pG3686_	(120)	- - - E D A G D V G G G C S - - - - - S P P - - -	
pG3695_	(128)		
pG3001	(66)	K E E N S K R R R N V K P I C R E T G D H V H Y L P T C K T	

FIG. 8E

	160	170	180
pG3002 (68)			
pG3680 (114)		M E A M D V K Y K P V M F P N G A G L K K	
pG2991 (48)	P I R I - - - - -	Q P A K P I S F S N G K R C H H	
pG2990 (46)	P T R I - - - - -	Q P A K P I S F S N G I I K R H	
pG2989 (44)	P T R I - - - - -	Q P A K P I S F S N G I I K R H	
pG2995 (56)	- - - - -	Q F L S P T T N N Q D T - G R E	
pG2992 (50)	- - - - -	Q L L N S L P I A G - - - - -	
pG3000 (64)	E A K P - - - - -	E S D P S M A L F P I K - - - K	
pG3663 (102)	H N H H H I Y T P S S T S P P L P P N S V Q L Q Q P T R		
pG2998 (62)	N T R V - - - - -	S C N - - S Q T L D H H Q S K S P S S F S	
pG3692 (124)			M
pG2999 (14)	D P D P - - - - -	L D T N P I S I S H A P R S Y A	
pG2994 (54)	T T Q P P M P L H G N G H G N N Y D H H H Q D P H H V G		
pG2993 (52)	T S N P L L V S S N S N G L G K N H D H S H H H V G Y N I		
pG3683 (116)	G M N G - - - - -	R H M S P T T P P A A E E S K A V V V	
pG2996 (58)	L P K A S - - - - -	T E S H E T T G T T S T G G G G G F M V	
pG3668 (104)	R K S G - - - - -	- - - - - G G - - - - -	
pG3671 (108)	A G G G - - - - -	M A P K P P G E I G S R V K G P - - - -	
pG3674 (110)	G G G G - - - - -	G V P K P G G V G G G G G - - - - -	
pG3670 (106)	R S K I - - - - -	A E V S A P V I G R K G G S F T - - - -	
pG3675 (112)	T S - - - - -	- - - - - S G - - - G G G G G S R - - - -	
pG2997 (60)	T S - - - - -	- - - - - S G - - - G G G V G R S - - - -	
pG3690 (122)	L A L V - - - - -	- - - - - G G G G G P R G G E G - - - -	
pG3694 (126)			
pG3685 (118)	- - - - -	- - - - - S S S P A A S A S A G - - - -	
pG3686 (120)	- - - - -	- - - - - T P P H R V L T S - - - -	
pG3695 (128)		M M D H L S L V P Y E G G S - - - -	
pG3001 (66)	K P - - - - -	- - - - - K P T R T H H A P P P I L D S I	

FIG. 8F

pG3002	(68)	M	Q	S	T	-	-	-	-	C	V	Y	R	E	C	M	R	N	H	A	A	K	L	G	S	Y	A	210			
pG3680	(114)	P	K	P	A	A	S	E	A	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
pG2991	(48)	H	H	L	A	S	E	A	V	-	-	A	V	A	T	Y	K	E	C	L	K	N	H	A	A	S	L	G	G	H	A
pG2990	(46)	H	H	H	H	H	P	-	-	-	-	L	L	F	T	Y	K	E	C	L	K	N	H	A	A	G	I	G	G	H	A
pG2989	(44)	H	H	H	H	H	N	-	-	-	-	N	K	V	T	Y	K	E	C	L	K	N	H	A	A	A	I	G	G	H	A
pG2995	(56)	Q	T	I	A	C	A	R	D	-	-	M	V	V	L	Y	N	E	C	L	K	N	H	A	V	S	L	G	G	H	A
pG2992	(50)	-	E	L	T	V	T	G	E	-	-	M	G	V	C	Y	K	E	C	L	K	N	H	A	A	N	L	G	G	H	A
pG3000	(64)	E	N	Q	K	P	K	T	R	V	D	Q	G	A	K	Y	R	E	C	Q	K	N	H	A	A	S	T	G	G	H	V
pG3663	(102)	D	P	D	P	S	S	S	-	S	L	L	I	R	Y	R	E	C	L	R	N	H	A	A	R	L	G	S	H	V	
pG2998	(62)	I	S	A	A	A	K	P	-	-	-	T	V	R	Y	R	E	C	L	K	N	H	A	A	S	V	G	G	S	V	
pG3692	(124)	E	Q	Q	E	R	P	R	-	-	-	-	E	V	Y	R	E	C	M	R	N	H	A	A	K	L	G	T	Y	A	
pG2999	(14)	R	P	Q	T	T	S	P	G	-	-	-	K	A	R	Y	R	E	C	Q	K	N	H	A	A	S	G	G	H	V	
pG2994	(54)	Y	N	A	I	I	K	K	P	-	-	-	M	I	K	Y	K	E	C	L	K	N	H	A	A	A	M	G	G	N	A
pG2993	(52)	M	V	T	N	I	K	K	E	K	P	V	V	I	K	Y	K	E	C	L	K	N	H	A	A	T	M	G	G	N	A
pG3683	(116)	V	S	S	S	A	T	A	A	-	-	-	-	A	R	Y	R	E	C	L	K	N	H	A	A	A	I	G	G	S	A
pG2996	(58)	V	H	G	G	G	G	S	R	-	-	-	-	F	R	F	R	E	C	L	K	N	H	A	V	N	I	G	G	H	A
pG3668	(104)	-	G	G	G	G	-	-	-	-	-	-	-	Y	R	Y	K	E	C	L	K	N	H	A	V	G	I	G	G	Q	A
pG3671	(108)	-	S	C	G	G	G	-	-	-	-	-	-	-	R	Y	R	E	C	L	K	N	H	A	V	G	I	G	G	H	A
pG3674	(110)	-	G	G	G	G	G	G	-	-	-	-	-	A	R	Y	R	E	C	L	K	N	H	A	V	G	I	G	G	H	A
pG3670	(106)	-	P	P	V	A	G	V	-	-	-	-	-	V	R	Y	R	E	C	Q	K	N	H	A	V	S	F	G	G	H	A
pG3675	(112)	-	K	T	V	G	G	S	K	-	-	-	-	V	R	Y	R	E	C	L	K	N	H	A	V	N	I	G	G	H	A
pG2997	(60)	-	K	G	V	G	-	A	K	-	-	-	-	I	R	Y	R	E	C	L	K	N	H	A	V	N	I	G	G	H	A
pG3690	(122)	-	A	A	G	E	A	P	T	-	-	-	-	W	R	Y	R	E	C	L	K	N	H	A	A	R	M	G	A	H	V
pG3694	(126)	-	N	G	A	G	A	A	E	-	-	-	-	V	R	Y	H	E	C	L	R	N	H	A	A	M	M	G	A	H	V
pG3685	(118)	-	A	A	P	E	T	I	R	-	-	-	-	C	R	Y	H	E	C	L	R	N	H	A	A	A	M	G	G	H	V
pG3686	(120)	-	A	G	G	G	G	-	-	-	-	-	-	G	K	Y	K	E	C	M	R	N	H	A	A	A	M	G	G	Q	A
pG3695	(128)	F	K	V	T	H	K	P	-	-	-	-	-	-	H	Y	Y	E	C	R	K	N	H	A	A	D	I	G	T	T	A
pG3001	(66)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	(681) (682)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

FIG. 8G

pG3002	(68)	V K Q L A R L K W K T A E E R N - - - - -	340	350	360
pG3680	(114)	Y F P T A P H M V L S L G S G V P G P A V A V S P A Q R L A			
pG2991	(48)	P I S S S Y M L L A L S G - - - - -			
pG2990	(46)	P I S S S Y M L L S L S G T N N N N L A S F S D L N F S			
pG2989	(44)	P I S S S Y M L L A L S G - - - - -			
pG2995	(56)	S L S S G F F G P S D Q E - - - - -			
pG2992	(50)	S L S S G F F G P S D Q - - - - -			
pG3000	(64)	R T S S S S E D M K K I L S H R - - - - -			
pG3663	(102)	- - - L M M G F G G G S G G P - - - - -			
pG2998	(62)	G M V T P M S V A Y G G G G - - - - -			
pG3692	(124)	Y M H M A M G G A V G G G G - - - - -			
pG2999	(14)	S R H V S P I M M S F G G G G C - - - - -			
pG2994	(54)	H Q M I M P I G V S N Y R Y M H N - - - - -			
pG2993	(52)	Q Q M I M P I G V T T A G - - S - - - -			
pG3683	(116)	- - - P T R M V M P L S A M H T S - - - - -			
pG2996	(58)	- - - L Q L A L P P P Q R E R - - - - -			
pG3668	(104)	- - - Q R Q L A L P S T S R - - - - -			
pG3671	(108)	- Y P Q R P L A L P S T S H S G R D - - - - -			
pG3674	(110)	G Y P Q R P L A L P S T S H S G R D - - - - -			
pG3670	(106)	- - - P L A L P P A T S G G G - - - - -			
pG3675	(112)	- - - - - P Y K P P A S G D - - - - -			
pG2997	(60)	- - - - - Y R P P A S G D - - - - -			
pG3690	(122)	S P A S A P A A L A E S S S E E L R P P L P S S H P H A H			
pG3694	(126)	S P A S A P A A L A E S S S E E L R P P L P S S H P H A H			
pG3685	(118)	P Y H H T P S G S G G T T T E - - - - -			
pG3686	(120)	P G Y G T P S G G T G T T A - - - - -			
pG3695	(128)	A V P A A A W H H A A A A G R A G S E T P P R M D D F G			
pG3001	(66)	E G K K K K E K E S Y G G D - - - - -			

FIG. 8L

pG3002	(68)
pG3680	(114)
pG2991	(48)
pG2990	(46)
pG2989	(44)
pG2995	(56)
pG2992	(50)
pG3000	(64)
pG3663	(102)
pG2998	(62)
pG3692	(124)
pG2999	(14)
pG2994	(54)
pG2993	(52)
pG3683	(116)
pG2996	(58)
pG3668	(104)
pG3671	(108)
pG3674	(110)
pG3670	(106)
pG3675	(112)
pG2997	(60)
pG3690	(122)
pG3694	(126)
pG3685	(118)
pG3686	(120)
pG3695	(128)
pG3001	(66)
	(690)

FIG. 80

pG3002 (68)
pG3680_ (114)
pG2991 (48)
pG2990 (46)
pG2989 (44)
pG2995 (56)
pG2992 (50)
pG3000 (64)
pG3663_ (102)
pG2998 (62)
pG3692_ (124)
pG2999 (14)
pG2994 (54)
pG2993 (52)
pG3683_ (116)
pG2996 (58)
pG3668_ (104)
pG3671_ (108)
pG3674_ (110)
pG3670_ (106)
pG3675_ (112)
pG2997 (60)
pG3690_ (122)
pG3694_ (126)
pG3685_ (118)
pG3686_ (120)
pG3695_ (128)
pG3001 (66)

F N I N G A A S S A P T V A T D Y T T D N A N G A S S P H S
S G G A N G G - N V N G S S S S
S G G A D G G N V N A S S S S

L A A L H C I A L L F H Q I D A

V X L D S Q T H C H W H T L A

FIG. 8R

550 560 570

pG3002 (68)
pG3680_ (114)
pG2991_ (48)
pG2990 (46)
pG2989 (44)
pG2995 (56)
pG2992 (50)
pG3000 (64)
pG3663_ (102)
pG2998 (62)
pG3692_ (124)
pG2999 (14)
pG2994 (54)
pG2993 (52)
pG3683_ (116)
pG2996 (58)
pG3668_ (104)
pG3671_ (108)
pG3674_ (110)
pG3670_ (106)
pG3675_ (112)
pG2997 (60)
pG3690_ (122)
pG3694_ (126)
pG3685_ (118)
pG3686_ (120)
pG3695_ (128)
pG3001 (66)

A

FIG. 8S

G431-HD (612)	R	K	K	K	G	K	K	K	L	P	K	E	A	R	R	Q	Q	L	L	L	D	W	W	S	20	30
G432-HD (613)	K	K	K	K	G	K	K	K	L	P	K	E	A	R	R	Q	Q	L	L	L	D	W	W	S		E
G425-HD (614)	R	R	A	A	G	K	K	K	L	P	K	E	A	R	R	Q	Q	L	L	L	D	W	W	S		P
G426-HD (615)	R	R	A	A	G	K	K	K	L	P	K	E	A	R	R	Q	Q	L	L	L	D	W	W	S		P
G418-HD (616)	R	P	Q	Q	R	G	L	G	L	P	E	R	A	V	T	N	I	L	L	L	A	W	L	F	F	P
G419-HD (617)	R	P	Q	Q	R	G	L	G	L	P	E	R	A	V	T	N	I	L	L	L	A	W	L	F	F	P
G412-HD (618)	N	G	L	F	R	R	K	K	R	R	K	L	L	S	D	E	Q	V	N	M	L	E	M	S		L
G1545-HD (619)	N	G	W	F	R	R	K	K	L	R	L	L	L	S	D	E	Q	V	N	M	L	E	M	S		L
G399-HD (620)	E	T	S	R	R	K	K	L	R	L	L	L	L	S	D	E	Q	V	N	M	L	E	M	S		L
G400-HD (621)	D	N	S	R	R	K	K	L	R	L	L	L	L	S	D	E	Q	V	N	M	L	E	M	S		L
G384-HD (622)	N	K	K	R	K	R	Y	H	R	H	R	L	L	S	D	E	Q	V	N	M	L	E	M	S		L
G388-HD (623)	R	K	K	R	K	R	Y	H	R	H	R	L	L	S	D	E	Q	V	N	M	L	E	M	S		L
G392-HD (624)	K	Y	V	R	Y	T	T	P	A	E	Q	Q	V	E	A	L	E	R	R	L	V	Y	A	S		L
G438-HD (625)	K	Y	V	R	Y	T	T	P	A	E	Q	Q	V	E	A	L	E	R	R	L	V	Y	A	S		L
G1585-HD (626)	R	W	N	-	P	K	T	T	C	F	R	L	T	P	A	E	Q	V	N	M	L	E	M	S		L
G1540-HD (627)	K	S	S	S	R	R	R	R	R	R	R	L	T	P	A	E	Q	V	N	M	L	E	M	S		L
G415-HD (628)	K	S	S	S	R	R	R	R	R	R	R	L	T	P	A	E	Q	V	N	M	L	E	M	S		L
G416-HD (629)	G	R	R	R	R	R	R	R	R	R	R	L	T	P	A	E	Q	V	N	M	L	E	M	S		L
pG3002_HD (630)	Q	R	R	R	R	R	R	R	R	R	R	L	T	P	A	E	Q	V	N	M	L	E	M	S		L
pG3001_HD (631)	V	K	R	R	L	V	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG3000_HD (632)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2999_HD (633)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2998_HD (634)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2997_HD (635)	T	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2996_HD (636)	R	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2995_HD (637)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2994_HD (638)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2993_HD (639)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2992_HD (640)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2991_HD (641)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2990_HD (642)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L
pG2989_HD (643)	K	K	R	R	V	K	K	K	K	K	K	F	F	T	A	E	Q	V	N	M	L	E	M	S		L

FIG. 9A

Reply to Office action of 11 December 2007

REPLACEMENT SHEET

FIG. 9B

		pG3002 At (68)
		pG3680 Zm (114)
	100	pG2991 At (48)
	100	pG2990 At (46)
		pG2989 At (44)
	100	pG2995 At (56)
		pG2992 At (50)
		pG3000 At (64)
		pG3663 Lj (102)
		pG2998 At (62)
		pG3692 Os (jap) (124)
		pG2999 At (14)
	100	pG2994 At (54)
		pG2993 At (52)
		pG3683 Os (jap) (116)
83		pG2996 At (58)
	95	pG3668 Fb (104)
	96	pG3671 Os (108)
	100	pG3674 Os (110)
	97	pG3670 Lj (106)
	100	pG3675 Bn (113)
		pG2997 At (60)
	100	pG3690 Os (jap) (122)
	92	pG3694 Os (jap) (126)
	89	pG3685 Os (jap) (118)
		pG3686 Os (ind) (120)
		pG3695 Os (jap) (128)
		pG3001 At 66)

FIG. 10A

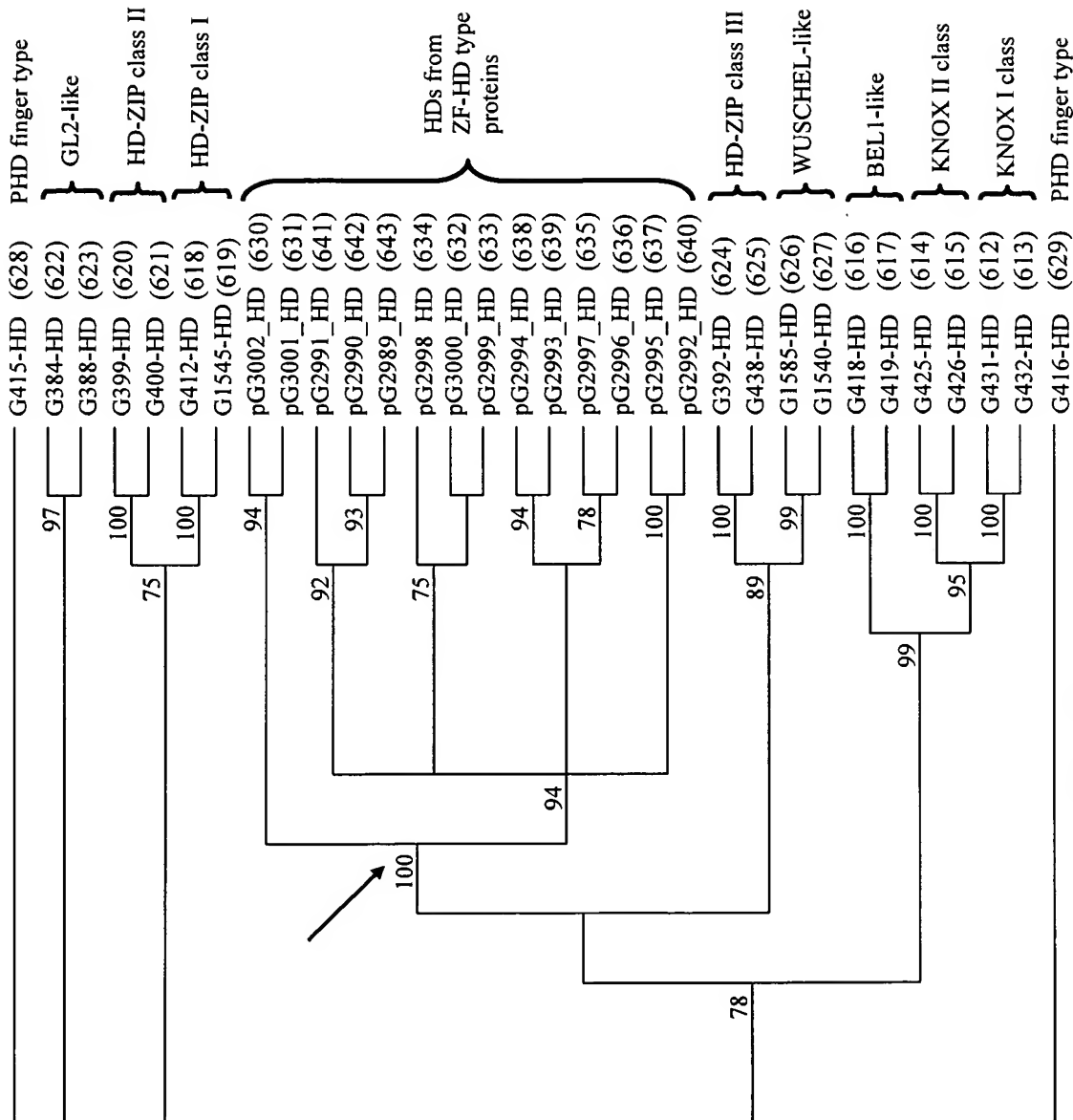


FIG. 10B

G1752 (573)
G1791 (34)
G1795 (36)
G30 (18)
G3380 (70)
G3794 (200)
G3736 (162)
G3381 (72)
G3517 (80)
G3739 (166)
G3520 (86)
G3383 (74)
G3737 (164)
G3515 (76)
G3516 (78)
G1792 (8)
G3518 (82)
G3519 (84)
G3735 (160)
G26 (574)
G22 (575)
G1006 (576)
G28 (577)
G1751 (578)
G45 (579)
G1266 (580)
G2512 (581)

MESS - - NRSS -
PLSPESMAGNR
NGVNSRMYFR -
LESITRHL LGG
LESIRRHLLG -
PEQELSVIVSA
TQVSPPTVLPNY

FIG. 12A

G1752 (573)	90	100	110	120
G1791 (34)		M E Y S - - Q S S M Y S - - S P - - - S		
G1795 (36)		M E R I - - - - - - - - - - - - - - -		
G30 (18)		M D Q G - - - - - - - - - - - - - - -		
G3380 (70)		M D Q G - - - - - - - - - - - - - - -		
G3794 (200)		M D G - - - - - - - - - - - - - - -		
G3736 (162)		M D - - - - - - - - - - - - - - -		
G3381 (72)		M E G G - - - - - - - - - - - - - - -		
G3517 (80)		M D H H - - - - - - - - - - - - - - -		
G3739 (166)		M D G - - - - - - - - - - - - - - -		
G3520 (86)		M D G - - - - - - - - - - - - - - -		
G3383 (74)		M E E - - - - - - - - - - - - - - -		
G3737 (164)		M E D - - - - - - - - - - - - - - -		
G3515 (76)		M E D - - - - - - - - - - - - - - -		
G3516 (78)		M E D - - - - - - - - - - - - - - -		
G1792 (8)		M E D - - - - - - - - - - - - - - -		
G3518 (82)		Q D D - - - - - - - - - - - - - - -		
G3519 (84)		M E G - - - - - - - - - - - - - - -		
G3735 (160)		M E G - - - - - - - - - - - - - - -		
G26 (574)		M E G - - - - - - - - - - - - - - -		
G22 (575)		M E G - - - - - - - - - - - - - - -		
G1006 (576)		M E G - - - - - - - - - - - - - - -		
G28 (577)		V S D F V S E L T G Q P I P S S I D D Q - - - - -		
G1751 (578)		- - - I L N D N W S D L P - - L S V D D S - - - - -		
G45 (579)		- - - C F T E S W G G L P - - L K E N D S - - - - -		
G1266 (580)		- - - Y P C F T E S W G G L P - - L K E N D S - - - - -		
G2512 (581)		I E G C L G C N Y F F A P N - Q R I E K N H Q - - - - -		
		- V P E V S R T W E A L P T L D D I P E G - - - - -		
		M D P F L I Q S P F S G - - F S P E Y S I G S		
		M E Y - - - Q T N F L S G E F S P E N S S S		
		M .		

FIG. 12C

	130	140	150	160
G1752(573)	S W S S Q E S L L W N E S C - F L D Q S S E P Q A F F C - - P N Y D Y S D D F			
G1791(34)	E S - - - Y N T N E M -			
G1795(36)	G R - - - G V G A E H G -			
G30(18)	G R S S G S - G G G G A E Q G -			
G3380(70)	D G G G W D D Q G N G G G -			
G3794(200)	D G G -			
G3794(162)	E G S - - - - G G G G -			
G3381(72)	H Q Q Q - - - Q Q E G -			
G3517(80)	E W S K - D - G G G G -			
G3739(166)	D W S K - D - G G G G -			
G3520(86)	S K E K - - - K K D T -			
G3383(74)	N R S - - - - K D T -			
G3737(164)	D K - - - - K E A -			
G3515(76)	D K S - - - - K E G -			
G3516(78)	D K - - - - K E G -			
G1792(8)	- -			
G3518(82)	G R S S V S - - - N G N -			
G3519(84)	G R S S V S - - - N G N -			
G3735(160)	D H K L V S N S - - - T N G N G -			
G26(574)	S S S - - - L T L Q E K S -			
G22(575)	N T L R D A V S S G W T P S V P - - - P V T - - - - S P A E E N K P P A T K A - - - -			
G1006(576)	G L L K D A F H - - F D T S S S - - - D L S C L F D F P A V K V E P T E N F T - - - -			
G28(577)	G I L N D A F H G G W E P S S S S S D E D R S - - - S F P S V K I E T P E S F A - - - -			
G1751(578)	E E E I T S S S N R R R E S S P -			
G45(579)	S R E M L Q S L D M S T E D Q E W T E I L D A I A S F P N - - K T N H D P L T N - - - -			
G1266(580)	S P D S F S S S S N N Y S L P F N E N D S E - E M F L Y G L I E Q S T Q Q T Y - - - -			
G2512(581)	S W S S - Q E S F L W E E S - - F L H Q S F D - Q S F L L S S P T D N Y C D D F - - - -			

FIG. 12D

	170	180	190	200
G1752_(573)	F S F S P E M M I	K E E I Q N G D V S N S E E E K V G I D E E R S	Y R G V R	
G1791_(34)	- - - - -	- - - - -	- - - - -	K Y R G V R
G1795_(36)	- - - - -	- - - - -	- - - - -	K Y R G V R
G30_(18)	- - - - -	- - - - -	- - - - -	K Y R G V R
G3380_(70)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3794_(200)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3736_(162)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3381_(72)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3517_(80)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3739_(166)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3520_(86)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3383_(74)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3737_(164)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3515_(76)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3516_(78)	- - - - -	- - - - -	- - - - -	- Y R G V R
G1792_(8)	- - - - -	- - - - -	- - - - -	- Y R G V R
G3518_(82)	- - - - -	- - - - -	- - - - -	- A R F R G V R
G3519_(84)	- - - - -	- - - - -	- - - - -	- V E V R Y R G I R
G3735_(160)	- - - - -	- - - - -	- - - - -	- C E V R Y R G I R
G26_(574)	- - - - -	- - - - -	- - - - -	- D Q I K Y R G I R
G22_(575)	- - - - -	- - - - -	- - - - -	- N Y R G V R
G1006_(576)	- - - - -	- - - - -	- - - - -	- G M Q Y R G V R
G28_(577)	- - - - -	- - - - -	- - - - -	- E T A V K A K H Y R G V R
G1751_(578)	- - - - -	- - - - -	- - - - -	- V T A A K G K H Y R G V R
G45_(579)	- - - - -	- - - - -	- - - - -	- K N G Y R G V R
G1266_(580)	- - - - -	- - - - -	- - - - -	- T R K Y R G V R
G2512_(581)	- - - - -	- - - - -	- - - - -	- E K S Y R G V R
(692)	- - - - -	- - - - -	- - - - -	- E K S Y R G V R

FIG. 12E

G1752_ (573)	K	R	P	W	G	K	F	A	A	E	I	R	D	S	T	R	N	G	I	R	V	W	L	G	T	F	D	K	A	E	E	A	A	L	A	Y	D	Q	A	A
G1791_ (34)	K	R	P	W	G	K	Y	A	A	E	I	R	D	S	A	R	H	G	A	R	V	W	L	G	T	F	D	N	T	A	E	D	A	A	Y	D	R	A	A	
G1795_ (36)	R	R	P	W	G	K	Y	A	A	E	I	R	D	S	R	K	H	G	E	R	V	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	Q	A	A		
G30_ (18)	R	R	P	W	G	K	Y	A	A	E	I	R	D	S	R	K	H	G	E	R	V	W	L	G	T	F	D	T	A	E	D	A	A	Y	D	R	A	A		
G3380_ (70)	R	R	P	S	G	K	F	A	A	E	I	R	D	S	S	R	Q	S	V	R	V	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	A	A		
G3794_ (200)	R	R	P	S	G	K	F	A	A	E	I	R	D	S	S	R	Q	S	V	R	M	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	A	A		
G3736_ (162)	R	R	P	W	G	K	F	A	A	E	I	R	D	S	S	R	H	G	V	R	M	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	S	A		
G3381_ (72)	R	R	P	W	G	K	F	A	A	E	I	R	D	S	S	R	H	G	V	R	V	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	S	A		
G3517_ (80)	R	R	P	W	G	K	Y	A	A	E	I	R	D	S	S	R	H	G	V	R	I	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	S	A		
G3739_ (166)	R	R	P	W	G	K	Y	A	A	E	I	R	D	S	S	R	H	G	V	R	I	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	S	A		
G3520_ (86)	R	R	P	W	G	K	F	A	A	E	I	R	D	P	A	R	H	G	A	R	V	W	L	G	T	F	L	T	A	E	E	A	A	Y	D	R	A	A		
G3383_ (74)	R	R	P	W	G	K	F	A	A	E	I	R	D	P	E	R	G	G	A	R	V	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	A	A		
G3737_ (164)	R	R	P	W	G	K	F	A	A	E	I	R	D	P	E	R	G	G	S	R	V	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	A	A		
G3515_ (76)	K	R	P	W	G	K	F	A	A	E	I	R	D	P	E	R	G	G	S	R	V	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	A	A		
G3516_ (78)	K	R	P	W	G	K	F	A	A	E	I	R	D	P	E	R	G	G	S	R	V	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	A	A		
G1792_ (8)	R	R	P	W	G	K	F	A	A	E	I	R	D	P	S	R	N	G	A	R	L	W	L	G	T	F	E	T	A	E	E	A	A	Y	D	R	A	A		
G3518_ (82)	R	R	P	W	G	K	F	A	A	E	I	R	D	P	T	R	K	G	T	R	I	W	L	G	T	F	D	T	A	E	Q	A	A	Y	D	A	A	A		
G3519_ (84)	R	R	P	W	G	K	F	A	A	E	I	R	D	P	T	R	K	G	T	R	I	W	L	G	T	F	D	T	A	E	Q	A	A	Y	D	A	A	A		
G3735_ (160)	R	R	P	W	G	K	F	A	A	E	I	R	D	P	T	R	K	G	T	R	I	W	L	G	T	F	D	T	A	E	Q	A	A	Y	D	A	A	A		
G26_ (574)	Q	R	P	W	G	K	W	A	A	E	I	R	D	P	N	K	-	A	A	R	V	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	K	A	A		
G22_ (575)	R	R	P	W	G	K	F	A	A	E	I	R	D	P	N	K	N	G	A	R	V	W	L	G	T	Y	E	T	P	E	D	A	A	Y	D	R	A	A		
G1006_ (576)	Q	R	P	W	G	K	F	A	A	E	I	R	D	P	A	K	N	G	A	R	V	W	L	G	T	F	E	T	A	E	D	A	A	Y	D	I	A	A		
G28_ (577)	Q	R	P	W	G	K	F	A	A	E	I	R	D	P	A	K	N	G	A	R	V	W	L	G	T	F	E	T	A	E	D	A	A	Y	D	R	A	A		
G1751_ (578)	Q	R	P	W	G	K	F	A	A	E	I	R	D	P	K	R	-	A	T	R	V	W	L	G	T	F	E	T	A	E	D	A	A	Y	D	R	A	A		
G45_ (579)	K	R	P	W	G	K	F	A	A	E	I	R	D	S	T	R	N	G	V	R	V	W	L	G	T	F	Q	T	A	E	E	A	A	Y	D	K	A	A		
G1266_ (580)	R	R	P	W	G	K	F	A	A	E	I	R	D	S	T	R	N	G	I	R	V	W	L	G	T	F	E	S	A	E	E	A	A	Y	D	Q	A	A		
G2512_ (581)	K	R	P	W	G	K	F	A	A	E	I	R	D	S	T	R	K	G	I	R	V	W	L	G	T	F	D	T	A	E	A	A	Y	D	Q	A	A	A		
(692) (693)	R	R	P	W	G	K	F	A	A	E	I	R	D	P	.	R	G	.	R	V	W	L	G	T	F	D	T	A	E	E	A	A	Y	D	R	A	A	A		

FIG. 12F

G1752_ (573)	F	A	T	K	G	-	S	L	A	T	L	N	F	P	V	E	V	V	R	E	S	L	K	K	M	E	N	V	N	L	H	D	G	G	S	P	V	M	A	L	
G1791_ (34)	F	G	M	R	G	-	Q	R	A	I	L	N	F	P	H	E	Y	Q	M	M	K	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
G1795_ (36)	Y	S	M	R	G	-	Q	A	A	I	L	N	F	P	H	E	Y	N	M	G	S	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
G30_ (18)	Y	S	M	R	G	-	K	A	A	I	L	N	F	P	H	E	Y	N	M	G	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3380_ (70)	Y	A	M	R	G	-	H	L	A	V	L	N	F	P	A	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3794_ (200)	Y	A	M	R	G	-	Q	I	A	V	L	N	F	P	A	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3736_ (162)	Y	S	M	R	G	-	R	N	A	V	L	N	F	P	D	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3381_ (72)	Y	S	M	R	G	-	A	N	A	V	L	N	F	P	A	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3517_ (80)	N	S	M	R	G	-	A	N	A	V	L	N	F	P	E	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3739_ (166)	Y	S	M	R	G	-	A	N	A	V	L	N	F	P	E	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3520_ (86)	Y	E	M	R	G	-	A	L	A	V	L	N	F	P	E	N	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3383_ (74)	Y	A	Q	R	G	-	A	A	A	V	L	N	F	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3737_ (164)	F	A	M	K	G	-	A	M	A	V	L	N	F	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3515_ (76)	F	A	M	K	G	-	A	T	A	M	L	N	F	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3516_ (78)	F	A	M	K	G	-	A	T	A	V	L	N	F	P	A	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G1792_ (8)	F	N	L	R	G	-	H	L	A	I	L	N	F	P	N	E	Y	Y	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3518_ (82)	F	H	F	R	G	-	H	R	A	I	L	N	F	P	N	E	Y	Q	S	H	N	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3519_ (84)	F	H	F	R	G	-	H	R	A	I	L	N	F	P	N	E	Y	Q	S	H	N	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G3735_ (160)	F	H	F	R	G	-	H	R	A	I	L	N	F	P	N	E	Y	Q	A	P	N	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G26_ (574)	F	E	F	R	G	-	H	K	A	K	L	N	F	P	E	H	I	R	V	N	P	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G22_ (575)	F	Q	L	R	G	-	S	K	A	K	L	N	F	P	H	L	I	G	S	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G1006_ (576)	F	R	M	R	G	-	S	R	A	L	L	N	F	P	L	R	V	N	S	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G28_ (577)	F	R	M	R	G	-	S	R	A	L	L	N	F	P	L	R	V	N	S	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G1751_ (578)	I	G	F	R	G	-	P	R	A	K	L	N	F	P	F	V	D	Y	T	S	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
G45_ (579)	V	R	I	R	G	-	T	Q	K	A	H	T	N	F	Q	L	E	T	V	I	K	A	M	E	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
G1266_ (580)	F	S	M	R	G	-	-	S	A	I	L	N	F	S	A	E	R	V	Q	E	S	L	S	E	I	K	-	Y	T	Y	E	D	G	C	S	P	V	V	A	L	
G2512_ (581)	F	A	L	K	G	-	-	S	L	A	V	L	N	F	P	A	D	V	V	E	E	S	L	R	K	M	E	N	V	N	L	N	D	G	E	S	P	V	I	A	L
(693) (679)	F	M	R	G	-	-	-	A	.	L	N	F	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

FIG. 12G

REPLACEMENT SHEET

G1752_	(573)	K R K H S L R N R P R - - - G K K R S S S S S S - - S S S - S N S S S C S S S
G1791_	(34)	P N - - - G S H E - - - N A V A S S S S S G - - - Y R G G G D
G1795	(36)	S S S T A M A G S S S - - - A S A S S S - - - - - - - - -
G30_	(18)	- - - - - G S S S - - - T A A N S S S S - - - - - - - - -
G3380_	(70)	R N Y V R G S - - - G S - - - S S S S - - - R Q - - - H Q
G3794_	(200)	R N Y V R G - - - G S - - - S S S - - - R Q - - - Q Q
G3736_	(162)	H V Y A E A R R - Q - - G - G S S S A - - - R Q Q N Q Q Q
G3381_	(72)	H I Y E A R Q L H N - N - - N A A G S S S - - - S S - - - A A
G3517_	(80)	P A Y A A A S R - - - G S - A G G S S - - - R P - - -
G3739_	(166)	H A Y A A A C - R - - G S G S S S S S - - - R H R - Q Q Q
G3520_	(86)	P S C S S M N S S - - - S T L A P S S S S - - - S N S M L K S D
G3383_	(74)	A A A A G R G G - - - A G G A A S G S - - - S S S S A Q
G3737_	(164)	- - - G R T S S - - - T G S S S S S S S - - - T P P A P V T
G3515_	(76)	D H H G A A S R - M - - T S T G S S S S S - - - F T T P P P A N S
G3516_	(78)	G S S A G A A P G R - - - T S G G S S S S - - - T T S A P A S
G1792_	(8)	R M D D Y S L R P P Y - - - A S S S S S S S - - - G S T S T N V S
G3518_	(82)	S S L P M P L A V S A - - - P P S Y S S S S - - - S T S N Y S G D D
G3519_	(84)	S S L P M P L I V P - - - P P S Y S S S - - - F T S N Y S A D D
G3735_	(160)	S S L P M P L T M P P P P S S S S S S S - - - S F S S Y T V D
G26_	(574)	Q L Y P S P A T S H D R - I I V T P P S P P P P I A P D I L D Q Y G H F Q S R
G22_	(575)	K Y E P V R I R P R R - - - R S S P E P S V S - - - D Q L T S E Q K
G1006_	(576)	E P D P V R I T S K R - - - S S S S S S S S T S S - S E N G K L K R R
G28_	(577)	V S S P V R I K S K R - - - S S F S S S N - - - E N G A P K K R
G1751_	(578)	V S S P V A A D D I G - - - A K A S A S V S - - - A T D S V E A Y
G45_	(579)	P N Y Y R M N R N T - - - S D P L R S S R - - - K I G L R - G K E A V K A Y
G1266_	(580)	K R K H S M R R R - M - - - T N K K T K D S D - - - - - F D H R
G2512_	(581)	K R K H S M R R R P R - - - G K K K S S S S S T L T S S P S S S S Y S S

FIG. 12H

FIG. 12J

G1752_ (573)	Y	L	E	Q	L	L	M	S	S	C	410	420	430	440												
G1791_ (34)	L	L	E	E	L	L	D	Y	G	E	-	R	S	N	Q	-	D	N	C	N	D	A	N	R	-	-
G1795_ (36)	V	L	E	E	L	L	E	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G30_ (18)	V	L	D	E	L	L	E	Y	-	G	-	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3380_ (70)	V	L	Q	E	M	L	K	G	G	D	D	Q	Y	R	S	A	A	G	S	K	R	N	N	Y	-	-
G3794_ (200)	V	L	Q	E	M	L	K	G	G	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3736_ (162)	V	L	Q	S	M	L	H	D	H	D	K	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3381_ (72)	V	L	Q	E	M	L	R	D	H	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3517_ (80)	V	L	Q	E	M	L	R	S	Q	E	P	S	A	-	-	-	-	-	-	-	-	-	-	-	-	-
G3739_ (166)	V	L	Q	E	M	L	R	N	H	E	P	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3520_ (86)	L	L	E	D	L	L	D	C	D	D	Y	A	Y	-	-	-	-	-	-	-	-	-	-	-	-	-
G3383_ (74)	V	L	D	D	L	L	D	D	E	-	K	Y	R	G	-	-	-	-	-	-	-	-	-	-	-	-
G3737_ (164)	V	L	D	E	L	L	A	E	D	Y	S	Y	R	N	-	-	-	-	-	-	-	-	-	-	-	-
G3515_ (76)	V	L	E	D	L	L	A	E	T	-	N	Y	R	D	-	-	-	-	-	-	-	-	-	-	-	-
G3516_ (78)	V	L	E	E	L	L	A	E	D	-	K	Y	N	-	-	-	-	-	-	-	-	-	-	-	-	-
G1792_ (8)	V	L	E	E	L	L	D	S	-	-	E	E	R	K	R	-	-	-	-	-	-	-	-	-	-	-
G3518_ (82)	L	L	E	E	L	L	Q	M	Q	D	N	R	H	F	-	-	-	-	-	-	-	-	-	-	-	-
G3519_ (84)	L	L	E	E	L	L	Q	M	Q	D	N	R	H	F	-	-	-	-	-	-	-	-	-	-	-	-
G3735_ (160)	L	L	Q	E	L	L	-	-	Q	D	G	T	Q	-	-	-	-	-	-	-	-	-	-	-	-	-
G26_ (574)	G	L	R	P	N	L	E	D	G	E	-	-	-	N	V	K	N	I	S	I	H	K	R	R	K	-
G22_ (575)	F	D	G	S	L	L	M	D	-	-	Q	S	E	C	S	Y	S	D	N	R	I	-	-	-	-	-
G1006_ (576)	V	D	-	E	L	L	V	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G28_ (577)	R	G	-	R	L	L	V	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G1751_ (578)	M	M	M	D	F	G	N	G	D	S	-	-	-	S	D	S	G	N	T	I	A	D	M	F	Q	-
G45_ (579)	Y	L	E	T	L	L	S	S	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G1266_ (580)	Y	L	E	E	L	L	G	S	S	E	-	-	-	N	S	G	T	W	-	-	-	-	-	-	-	-
G2512_ (581)	Y	L	E	E	L	-	M	R	S	C	-	-	-	S	-	-	-	-	-	-	-	-	-	-	-	-
	V	L	.	E	L	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FIG. 12K

	450			460		470		480
G1752_(573)								
G1791_(34)								
G1795_(36)	-	-	-	-	-	-	-	-
G30_(18)								
G3380_(70)								
G3794_(200)								
G3736_(162)								
G3381_(72)								
G3517_(80)								
G3739_(166)								
G3520_(86)								
G3383_(74)								
G3737_(164)								
G3515_(76)								
G3516_(78)								
G1792_(8)								
G3518_(82)								
G3519_(84)								
G3735_(160)								
G26_(574)								
G22_(575)								
G1006_(576)								
G28_(577)								
G1751_(578)								
G45_(579)								
G1266_(580)								
G2512_(581)								

FIG. 12L

Appl. No. 10/714,887
Amdt. dated 11 June 2008
Reply to Office action of 11 December 2007
REPLACEMENT SHEET

G1752_At (582)	L	V	V	F	E	D	L	G	A	E	Y	L	E	Q	L	L
G1791_At (555)	V	I	E	F	E	Y	L	D	D	S	L	L	E	E	L	L
G1795_At (556)	V	F	E	F	E	Y	L	D	D	S	V	L	E	E	L	L
G30_At (557)	V	F	E	F	E	Y	L	D	D	S	V	L	D	E	L	L
G3380_Os (558)	V	I	E	L	E	C	L	D	D	Q	V	L	Q	E	M	L
G3794_Zm (559)	V	I	E	L	E	C	L	D	D	Q	V	L	Q	E	M	L
G3736-Ta (560)	V	I	E	F	E	Y	L	D	D	D	V	L	Q	S	M	L
G3381_Os (561)	P	I	E	F	E	Y	L	D	D	H	V	L	Q	E	M	L
G3517_Zm (562)	V	I	E	F	E	Y	L	D	D	E	V	L	Q	E	M	L
G3739_Zm (563)	V	I	E	L	E	Y	L	D	D	E	V	L	Q	E	M	L
G3520_Gm (564)	V	I	E	F	E	C	L	D	D	K	L	L	E	D	L	L
G3383_Os (565)	K	I	E	F	E	Y	L	D	D	K	V	L	D	D	L	L
G3737_Os (566)	K	V	E	L	V	Y	L	D	D	K	V	L	D	E	L	L
G3515_Os (567)	K	V	E	L	E	C	L	D	D	K	V	L	E	D	L	L
G3516_Zm (568)	K	V	E	L	E	C	L	D	D	R	V	L	E	E	L	L
G1792_At (569)	V	F	E	F	E	Y	L	D	D	K	V	L	E	E	L	L
G3518_Gm (570)	T	F	E	L	E	Y	F	D	N	K	L	L	E	E	L	L
G3519_Gm (571)	T	F	E	L	E	Y	L	D	N	K	L	L	E	E	L	L
G3735_Mt (572)	-	-	E	L	E	F	L	D	N	K	L	L	Q	E	L	L
G26_At (583)	S	S	S	S	S	S	L	N	H	Q	G	L	R	P	N	L
G22_At (584)	E	L	D	F	T	V	D	Q	F	Y	F	D	G	S	L	L
G1006_At (585)	K	C	E	V	-	G	D	E	T	R	V	D	-	E	L	L
G28_At (586)	T	V	K	C	E	-	V	E	V	A	R	G	-	R	L	L
G1751_At (587)	C	N	M	E	E	W	M	N	M	M	M	M	M	D	F	G
G45_At (588)	L	F	E	F	E	D	L	G	S	D	Y	L	E	T	L	L
G1266_At (589)	V	V	V	F	E	D	L	G	E	Q	Y	L	E	E	L	L
G2512_At (590)	L	V	V	L	E	D	L	G	A	E	Y	L	E	E	L	-
(591)					E			D				L				L

G1792
clade

FIG. 13

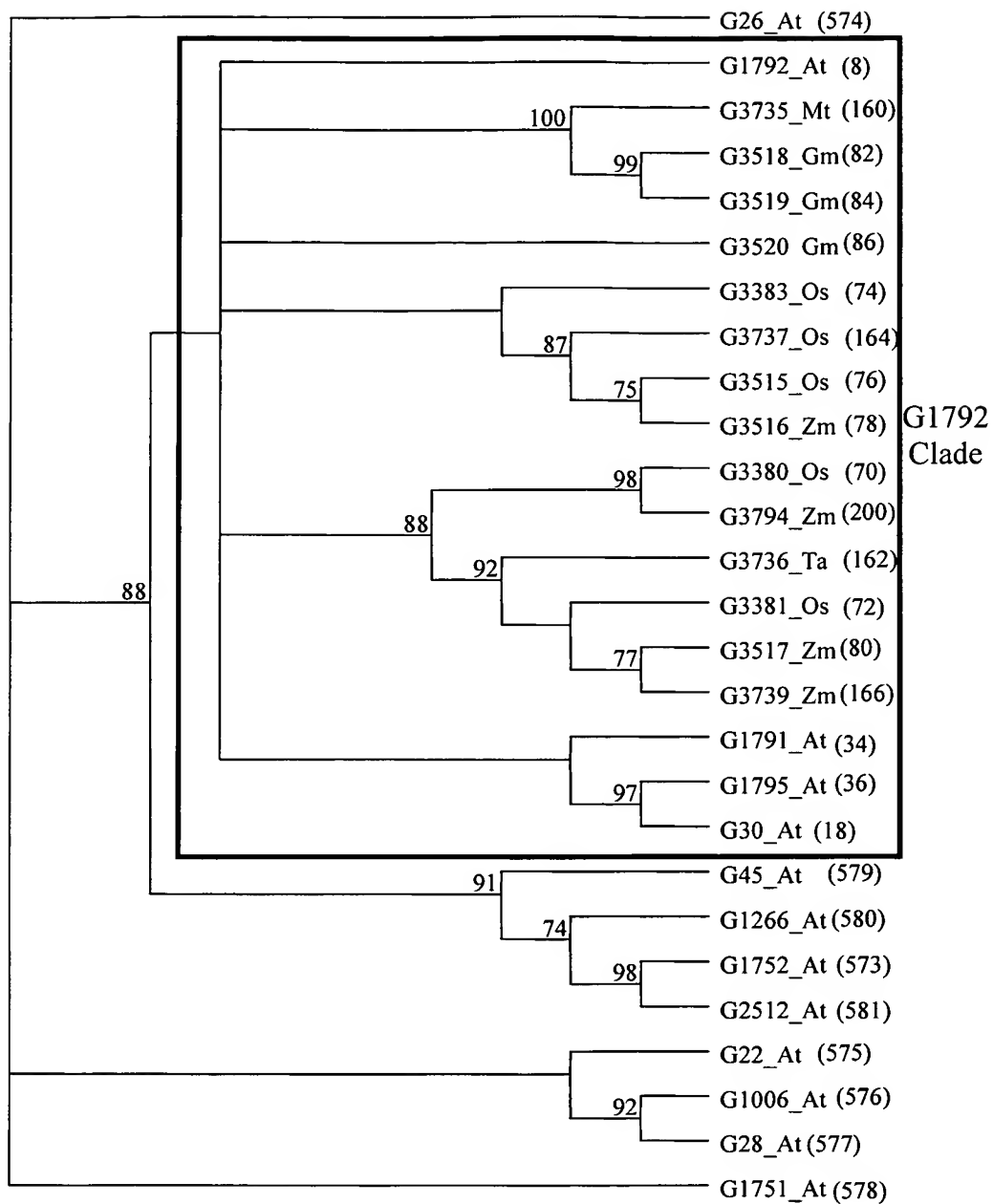


FIG. 14

FIG. 16A

71	G2767	(645)	DSF.HTPKHQ	KLIDSSFHEN	SHDPF...SP	SPESNYLLDS	YITEASNISK	FQAPDFSSTF	KVGWTEQDGT
	G1131	(646)	DFFLPTPKRQ	RLVNSSYNCR	TQNHQSRNP	NFFDFPGDTD	FVPESCFTQE	FRVPDFSLAF	KVGRGDQDSS
	G2766	(42)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G2149	(38)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G2555	(40)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G1134	(38)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3771	(194)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3763	(180)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3764	(182)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3767	(188)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3768	(190)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3769	(192)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3765	(184)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3766	(186)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3744	(174)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3755	(178)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G592	(26)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3742	(172)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3086	(16)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3782	(198)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3740	(168)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3741	(170)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3772	(196)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3746	(176)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3752	(647)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3753	(648)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3751	(649)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G793	(650)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G591	(651)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3750	(652)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3748	(653)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3749	(654)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G589	(655)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G1061	(656)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G2791	(657)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3774	(658)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~
	G3760	(659)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~

FIG. 16B

211	G2767	(645)	SSKVGREMQF	LLGSQEIQEK	LSTEEVCVVP	REMVQVLKAE	ECILTPNKIS	RDINKLLSTN	280
	G1131	(646)	SSNVQMETQY	LLESQAIOEK	LSTEEVCLVP	CEMVQDLITTE	ETICRTPNIS	REINKLLSKH	
	G2766	(42)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G2149	(38)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G2555	(40)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G1134	(38)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3771	(194)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3763	(180)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3764	(182)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3767	(188)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3768	(190)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3769	(192)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3765	(184)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3766	(186)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3744	(174)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3755	(178)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G592	(26)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3742	(172)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3086	(16)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3782	(198)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3740	(168)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3741	(170)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3772	(196)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3746	(176)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3752	(647)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3753	(648)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3751	(649)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G793	(650)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G591	(651)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3750	(652)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3748	(653)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
	G3749	(654)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	
G589	(655)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~		
G1061	(656)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~		
G2791	(657)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~		
G3774	(658)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~		
G3760	(659)	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~	~~~~~		

FIG. 16D

[illegible]

~MQPCSR

[illegible]

[illegible]

FIG. 16G

FIG. 16H

FIG. 16J

FIG. 16K

FIG. 16L

841	G2767 (645)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	910	~ ~ ~ ~ ~
	G1131 (646)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G2766 (42)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G2149 (38)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G2555 (40)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G1134 (38)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3771 (194)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3763 (180)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3764 (182)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3767 (188)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3768 (190)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3769 (192)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3765 (184)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3766 (186)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3744 (174)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3755 (178)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G592 (26)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3742 (172)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3086 (16)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3782 (198)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		QISFSQYPM
	G3740 (168)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		SVGHTDVNGI
	G3741 (170)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3772 (196)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3746 (176)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3752 (647)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3753 (648)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3751 (649)	EMRSRV ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G793 (650)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G591 (651)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3750 (652)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3748 (653)	KADGGAGGTQ	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3749 (654)	CDDAGVFFSV	KFVELSFL	LNEDCRKBE	SKLLVOKGP ~		~ ~ ~ ~ ~
	G589 (655)	. . . ANGN SSLVTVKD	APSVSKP ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G1061 (656)	NKLNNGVGT	ERSSSIAVKE	AVSVSKA ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G2791 (657)	SKA ~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3774 (658)	QSAIAGNDGA	ASVSKP ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~
	G3760 (659)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~

	G2767	(645)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	980	~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G1131	(646)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G2766	(42)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G2149	(38)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G2555	(40)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G1134	(38)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3771	(194)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3763	(180)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3764	(182)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	MSVMYSPVLN	YSDEHQLRK	
	G3767	(188)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3768	(190)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3769	(192)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3765	(184)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3766	(186)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3744	(174)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3755	(178)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G592	(26)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3742	(172)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3086	(16)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	GLMRYHSAPS	SFFSSLGEEE	
	G3782	(198)	SEKMPQMQQQ	TNNVDFMDLD	YKPPLCNVSQ	ADGVWALTER	GSSNNFQGPT		
	G3740	(168)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3741	(170)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3772	(196)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3746	(176)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3752	(647)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3753	(648)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3751	(649)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G793	(650)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G591	(651)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3750	(652)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3748	(653)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3749	(654)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G589	(655)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G1061	(656)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G2791	(657)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3774	(658)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~
	G3760	(659)	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~	~ ~ ~ ~ ~		~ ~ ~ ~ ~	~ ~ ~ ~ ~

[illegible]

1051	1051	1120
G2767 (645)	~	~
G1131 (646)	~	~
G2766 (38)	~	~
G2149 (38)	STSSSSQSS	LPGGGLIRY
G255 (40)	~	~
G1134 (38)	~	~
G3771 (194)	~	~
G3763 (180)	~	~
G3764 (182)	SSEMETLSK	LLPSNNGWSN
G3767 (188)	~	~
G3768 (190)	~	~
G3769 (192)	~	~
G3765 (184)	~	~
G3766 (186)	~	~
G3744 (174)	~	~
G3755 (178)	~	~
G592 (26)	LYDPNPTGSG	LLRFRSAPSS
G3742 (172)	~	~
G3086 (16)	ESIEEFLDRP	TSPETERILS
G3782 (198)	SREDLGKHP	LDAILENVPD
G3740 (168)	~	~
G3741 (170)	QORGEMSAR	YGGGLQFFAD
G3772 (196)	~	~
G3746 (176)	GLARYGSAPG	SLLASIADSV
G3752 (647)	~	~
G3753 (648)	~	~
G3751 (649)	~	~
G793 (650)	~	~
G591 (651)	~	~
G3750 (652)	~	~
G3748 (653)	~	~
G3749 (654)	~	~
G589 (655)	~	~
G1061 (656)	~	~
G2791 (657)	~	~
G3774 (658)	~	~
G3760 (659)	~	~

FIG. 16Q

FIG. 16R

FIG. 16S

1401				1428	
G2767	(645)	~~~~~	QENCTCGCSE	KPS	~~~~~
G1131	(646)	~~~~~	QKRCKCKPKE	EQ	~~~~~
G2766	(42)	QHQVEVRP	QKRCTCIPKE	EQ	~~~~~
G2149	(38)	QHQLQNLKCD	QRRCKCVVQE		~~~~~
G2555	(40)	QSQIQELTEQ	QRRCKCVVQE		~~~~~
G1134	(38)	QRQIQELTEE	QRRCKCVVQE		~~~~~
G3771	(194)	QKQIEELSEH	QRRCKCVVQE		~~~~~
G3763	(180)	QKQVKILRDT	RANCTCTSNO	KH	~~~~~
G3764	(182)	QKVKILSDC	KAKCKTSNE	KHYTRTCA	
G3767	(188)	QKQVQTLSDC	HAKCTCSHEK	QQ	~~~~~
G3768	(190)	QKQVQTLSDC	HAKCTCSHEK	QQ	~~~~~
G3769	(192)	QKQVQTLSDN	RAKCTCSHK	QQ	~~~~~
G3765	(184)	QKQFKTLSDK	RAKCKCINMQ	KSEADRV	
G3766	(186)	QKQFKTLSEK	RANCKCISMP	KADTNOIA	
G3744	(174)	QKQVKGLNDS	RANCTCSA.K	HQYSG	~~~~~
G3755	(178)	QKQVKVLKES	QDNCTCSASK	NOHSC	~~~~~
G592	(26)	QRYKILNDN	RANCKMNE	KKSI	~~~~~
G3742	(172)	QKQVKVLNDS	RSSCTCSASK	QKHFAG	~~~~~
G3086	(16)	QEQVKALEES	RARCRCSSA		~~~~~
G3782	(198)	QKQVQELAEN	RAKCTCTHNP	DCAKKT	~~~~~
G3740	(168)	QSQLQALKHE	QEKCTC.CSR	P	~~~~~
G3741	(170)	QSQLQTLKED	KEKCTCSCKQ	ASRNPAD	
G3772	(196)	QTVQVQLHKE	MENCTCGCKQ	SK	~~~~~
G3746	(176)	QGVQVQLKHD	QANCTCSGKH	DC	~~~~~
G3752	(647)	~~~~~	~~~~~	~~~~~	~~~~~
G3753	(648)	~~~~~	~~~~~	~~~~~	~~~~~
G3751	(649)	~~~~~	~~~~~	~~~~~	~~~~~
G793	(650)	~~~~~	~~~~~	~~~~~	~~~~~
G591	(651)	~~~~~	~~~~~	~~~~~	~~~~~
G3750	(652)	~~~~~	~~~~~	~~~~~	~~~~~
G3748	(653)	~~~~~	~~~~~	~~~~~	~~~~~
G3749	(654)	~~~~~	~~~~~	~~~~~	~~~~~
G589	(655)	~~~~~	~~~~~	~~~~~	~~~~~
G1061	(656)	~~~~~	~~~~~	~~~~~	~~~~~
G2791	(657)	~~~~~	~~~~~	~~~~~	~~~~~
G3774	(658)	~~~~~	~~~~~	~~~~~	~~~~~
G3760	(659)	~~~~~	~~~~~	~~~~~	~~~~~

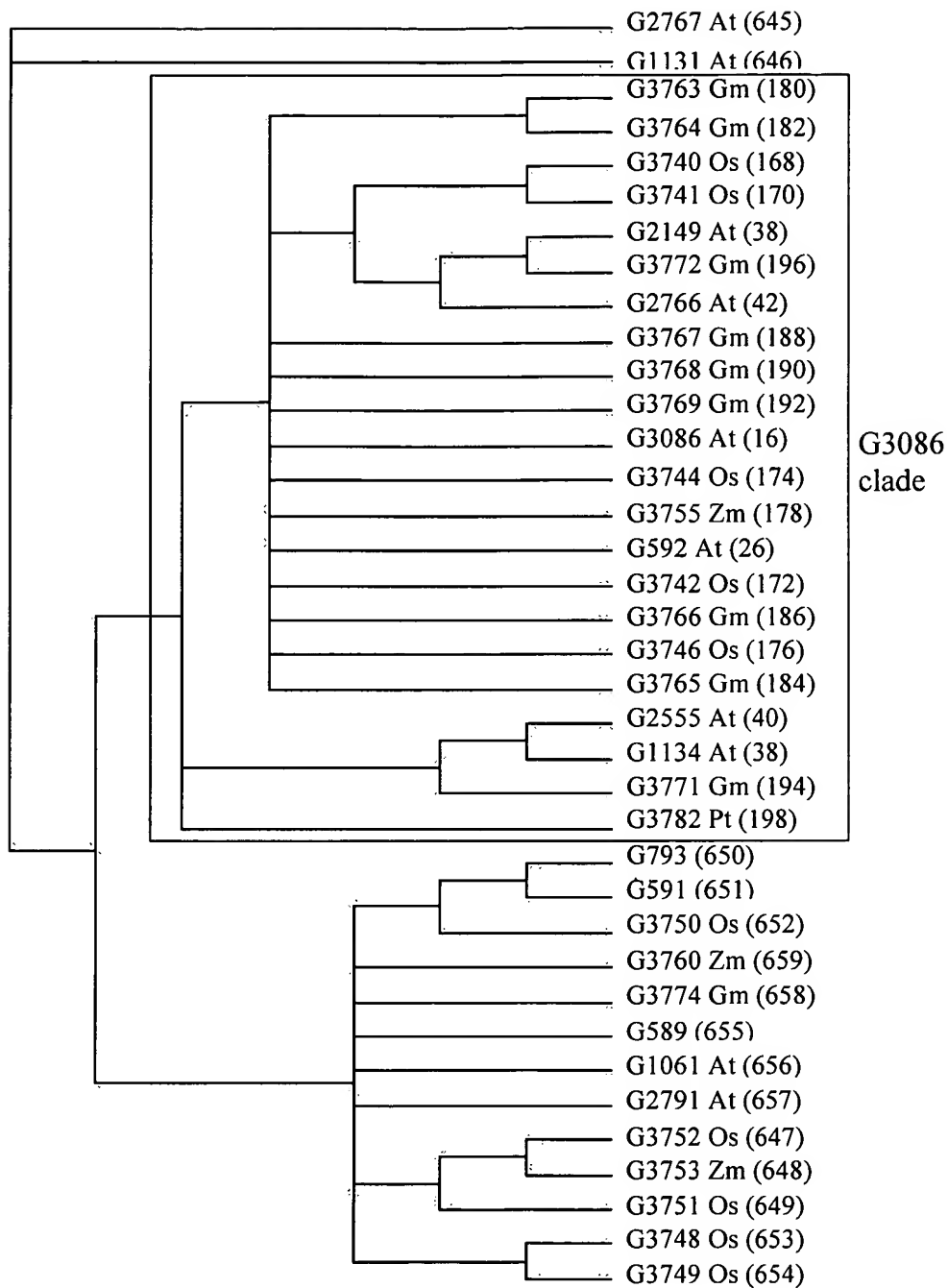


FIG. 17

G3810_Gm (212)	-----
G3811_Gm (214)	-----
G3824_Le (220)	-----
G922_At (4)	-----
G3812_Gm (479)	-----
G3814_Os (218)	-----
G3813_Os (216)	-----
G3827_Os (222)	-----
G306_At (480)	MAESG---DFN---GGQPPPHSPLRTTSSGSSS-----NNRGPPPPPPPPPLVMVRKRLA 49
G3821_Ps (481)	MAACA---LFGVGGGNTTPDETNNNSTSNSSNI STEDFHNMPQQQPHHSERKLLRKRMA 57
G3822_Zm (482)	MPPPPPPPLTPYCRRCPPPHLPPPPSPNHFLLH---YLHLDHQEAAAAAMVRKRPA 57
G2738_At (483)	-----
G3009_At (484)	-----
G307_At (485)	-----
G308_At (486)	-----
G309_At (487)	-----
G3816_Ta (488)	-----
G3817_Os (489)	-----
G3818_Gm (490)	-----
G3010_At (491)	-----
G3826_Le (492)	-----
G644_At (493)	-----
G3823_Os (494)	-----
G3820_Os (495)	-----
G1768_At (496)	-----
G3815_Os (497)	-----
G3825_Le (498)	-----
G852_At (499)	-----
G3819_Os (500)	-----
G1767_At (501)	-----

FIG. 19A

G3810_Gm (212)	-----	
G3811_Gm (214)	-----	
G3824_Le (220)	-----	
G922_At (4)	-----	
G3812_Gm (479)	-----	
G3814_Os (218)	-----	
G3813_Os (216)	-----	
G3827_Os (222)	-----	
G306_At (480)	SEMSSNPDYNNSS-----RPPRRVS-----	69
G3821_Ps (481)	SEMELQLHNNNNNDYHRFSRRNTSSLNCSLPATTQKGVTTTTTTTLASSGNNNNNN	117
G3822_Zm (482)	SDMDLPPPPRRHVT-----	70
G2738_At (483)	-----	
G3009_At (484)	-----	
G307_At (485)	-----	
G308_At (486)	-----	
G309_At (487)	-----	
G3816_Ta (488)	-----	
G3817_Os (489)	-----	
G3818_Gm (490)	-----	
G3010_At (491)	-----MGSYPDGFPG	10
G3826_Le (492)	-----MEALFQEQLFP	11
G644_At (493)	-----MITEPSLTGISG	12
G3823_Os (494)	-----	
G3820_Os (495)	-----MVIELPFDNQYTTTETECPHDGS	23
G1768_At (496)	-----	
G3815_Os (497)	-----	
G3825_Le (498)	-----	
G852_At (499)	-----	
G3819_Os (500)	-----	
G1767_At (501)	-----	

FIG. 19B

G3810_Gm	(212)	-----	
G3811_Gm	(214)	-----	
G3824_Le	(220)	-----	
G922_At	(4)	-----	
G3812_Gm	(479)	-----	
G3814_Os	(218)	-----	
G3813_Os	(216)	-----	
G3827_Os	(222)	-----	
G306_At	(480)	-----	99
G3821_Ps	(481)	NNNNYHHNNNNNSIINN>NNNNVALSRDNVAIQNFPTVTTNYSTMLLPSSCSSLNNS	177
G3822_Zm	(482)	-----	90
G2738_At	(483)	-----	
G3009_At	(484)	-----	
G307_At	(485)	-----	
G308_At	(486)	-----	
G309_At	(487)	-----	
G3816_Ta	(488)	-----	
G3817_Os	(489)	-----	
G3818_Gm	(490)	-----	
G3010_At	(491)	SMDELDFNKDFDLPSSNQTLGLANGFYLDD--LDFSSLDPP-EAYPSQNNNNNNINN	65
G3826_Le	(492)	CADSFIFR--HPSIPMDPRK-EVIQNG--LNNHPSFDQDYFSNHVVGVGDSSPP--	60
G644_At	(493)	MVNRRLSGLPDQPPSSHFTPTLYDGFNYNLSSDHINTVVAAPENSVFIREEEEE--	68
G3823_Os	(494)	-----	14
G3820_Os	(495)	SCSSQQQLSLYNSPSPDPQLFSQPTTGSRTYLSGAVTIPGICNDKSNLGQQQFQIDAA--	81
G1768_At	(496)	-----	
G3815_Os	(497)	-----	
G3825_Le	(498)	-----	
G852_At	(499)	-----	MVEQ 4
G3819_Os	(500)	-----	
G1767_At	(501)	-----	

FIG. 19C

FIG. 19D

G3810_Gm	(212)	-----
G3811_Gm	(214)	-----
G3824_Le	(220)	-----
G922_At	(4)	-----
G3812_Gm	(479)	-----
G3814_Os	(218)	-----
G3813_Os	(216)	-----
G3827_Os	(222)	-----
G306_At	(480)	-SSS-----ASPTVWDAIIRDLIHSS--TSVSIPQLIQNVRDIIIFPCNPNGALLEYR
G3821_Ps	(481)	VSSSPSMEETSATTNWIDGILKDLIHTS--NSVSIPQLINNVRREIIPCNPNLALVLEHR
G3822_Zm	(482)	AHAQAGGEATASTAWDGIIRDIIGSSGGAASITQLIHNVREIIPHCPNGLASLLELR
G2738_At	(483)	YKVRSSSEMAEVAQKLEQLEMVLSN-----DDVG-STVLNDSVHYNPSDLSNWVES-
G3009_At	(484)	YKVRSSDMADVAQKLEQLEMVLSN-----DIASSNAFNDTVHYNPSDLSGWAQS-
G307_At	(485)	YKVRSSSEMAEVALKLEQLETMMSNV-----QEDGLSHLATDTVHYNPSSELYSWLDN-
G308_At	(486)	YKVRSSSEMAADVAQKLEQLEVMMSNV-----QEDDLSQLATETVHYNPAELYTWLDS-
G309_At	(487)	YKVRSSDMADVAHAKLEQLEMVLG-----DGISNLSDETIVHYNPSDLSGWVES-
G3816_Ta	(488)	YKVRASDMADVAQKLEQLEMAMGMGVGAGAAPDDSFATHLATDTVHYNPTDLSWVES-
G3817_Os	(489)	YKVRSSDMADVAQKLEQLEMAMGMGVGAPGAADDGFVSHLATDTVHYNPSDLSWVES-
G3818_Gm	(490)	YKVRSSSELQHVAEENMERLENVMDIVN-----SSTNNNISQLASDTVFYFNPSDIGSWVDT-
G3010_At	(491)	EKYPSSSSASSVDHPERIASDSPDGSCSGGAFSDYASTTTTSSDSHWSVDGLEN-RPS-
G3826_Le	(492)	GSENNYSPQSVIINPHDSSS-----FLSNYSPDSIESP---QWDLN-----
G644_At	(493)	KKYPP-SPERNLAFAERNSE-----NLDREVPGNYTGGDCIGFGNGGKPLSSG-
G3823_Os	(494)	KAYPSSSKETAINGDSQADYP-----DNGSS--SYHEQACSGSFVSDLLGSQ----
G3820_Os	(495)	QVYPPSLNRLALHSANEPDTP-----DESSRNHYHNRHSSHSFNMQLPLPTP-
G1768_At	(496)	-----MDNVR-----GSIMQLPLPEI-
G3815_Os	(497)	YASSDDGSQKIGSSPOAFEAP-----YCTLESSSANGAHPAH-----SSASSHSISPI-
G3825_Le	(498)	LENRPFGTSKFDGNSPLVNY-----FNSETFNTVSDYQEQP-----SCTENLSGASS-
G852_At	(499)	YPSQSYEKYFLDSPDTDEFVQHPIGSGASVSSFGSLDSFFPYQSRPVLGCSMEFQLPLDST-
G3819_Os	(500)	QELDYYYRFYDVDEAAFDGNEVEVLVSRFSKVTRMDHMIISSPYQPTWSPAQAADVVGSS-
G1767_At	(501)	SPQTAYHYNFPQNDVVEECFNFFMDEEDLSSSSSHHHNNHNNTYYSFFTPTQYHP-

FIG. 19E

G3810_Gm	(212)	-----	
G3811_Gm	(214)	-----	
G3824_Le	(220)	-----	
G922_At	(4)	-----	
G3812_Gm	(479)	-----	
G3814_Os	(218)	-----	
G3813_Os	(216)	-----	
G3827_Os	(222)	-----	
G306_At	(480)	LRL-----	MLL 191
G3821_Ps	(481)	LRLLEPNTCVPERKRNSTEQGVN-----	VNGNVL 326
G3822_Zm	(482)	LRL-----	LAA 194
G2738_At	(483)	-----	MLS 103
G3009_At	(484)	-----	MLS 94
G307_At	(485)	-----	MLS 105
G308_At	(486)	-----	MLT 88
G309_At	(487)	-----	MLS 89
G3816-Ta	(488)	-----	MLS 107
G3817_Os	(489)	-----	MLS 108
G3818_Gm	(490)	-----	LLS 83
G3010_At	(491)	WLHTPMPSNFVFQSTSRNSVTGGGGNSAVYGSFGDDL-----	VSNMFKDDELAMQFKK 239
G3826_Le	(492)	-----FESPASMTLS-----	NHDSFFTSFGNG-----HFEE 177
G644_At	(493)	-----FTLDFRNPQSCSILSVP-----	QSNGLITIYGDGIDESSKNNRENHQSVWLFRR 217
G3823_Os	(494)	-----	DAHSITTDWSSEFD-----RLALQFRR 119
G3820_Os	(495)	-----	LSPYSYGRSLFLP-----NQHLVSTAWTSTFG-----IPGFQIRR 216
G1768_At	(496)	-----	AES 19
G3815_Os	(497)	-----	SGS 77
G3825_Le	(498)	-----	SSG 77
G852_At	(499)	-----	STS 126
G3819_Os	(500)	-----	ETS 98
G1767_At	(501)	-----	

FIG. 19F

G3810_Gm	(212)	-----	
G3811_Gm	(214)	-----	
G3824_Le	(220)	-----	
G922_At	(4)	-----	
G3812_Gm	(479)	-----	
G3814_Os	(218)	-----	
G3813_Os	(216)	-----	
G3827_Os	(222)	-----	
G306_At	(480)	DPSSSDPSPQTFE	210
G3821_Ps	(481)	AASNVNSSVKLMN	345
G3822_Zm	(482)	DPAPLPPPPQPQOH	213
G2738_At	(483)	ELNPPASSDLDT	115
G3009_At	(484)	DLN--YYPDLDP	104
G307_At	(485)	ELNPPPLPASSNGL	119
G308_At	(486)	DLNPP-----SSN	96
G309_At	(487)	DLDPTRIQEKPD	101
G3816-Ta	(488)	ELNAPPPPLPPAP--QLNASTSS	135
G3817_Os	(489)	ELNAPLPPIPPAPPAARHASTSS	138
G3818_Gm	(490)	EFDQTAS	90
G3010_At	(491)	GVEEASKFLPKSSQLFIDVDSYIPMNSGKENGSEVFKTEKKDETEHHHHSYAPPPNR	299
G3826_Le	(492)	GAVNVLQSGSSN	194
G644_At	(493)	EIEEANRFNPEENELIVNFR	241
G3823_Os	(494)	GVEEAKRFIPNIEKLVDDEKN	162
G3820_Os	(495)	GAEAKRFVPIIDKLVIDLDTDR	262
G1768_At	(496)	-----	
G3815_Os	(497)	PLSHHDSHDHT	89
G3825_Le	(498)	SSLDYNQYFHRP	89
G852_At	(499)	STRLLGDYQAVS	138
G3819_Os	(500)	RVRKKRFWDVLES	111
G1767_At	(501)	-----	

FIG. 19G

G3810_Gm	(212)	-----
G3811_Gm	(214)	-----
G3824_Le	(220)	-----
G922_At	(4)	-----MVAMFQEDNG
G3812_Gm	(479)	-----
G3814_Os	(218)	-----MFQDDML
G3813_Os	(216)	-----MVQDEGS
G3827_Os	(222)	-----MIT-FGL
G306_At	(480)	S-----NNPSPPPQQQQHQ-----QQQQQHKP-----PPPIQQQERENS-ST
G3821_Ps	(481)	VPTSLHFSDSSTLLNQNNQNMFPNWGATQINNNNNPSVSLVTLPSQPLSTQQDQH-QL
G3822_Zm	(482)	APAAAAGLTLPPPPPLPK-----RRHEHP-----PCQQQQQEEHPAPQS
G2738_At	(483)	-----TRSCVDRSEYDLRAIPGLSAFPKEEVF-----DEEASSKR
G3009_At	(484)	-----NRIC-----DLRPIT-----DDDECCS-----SNSNSNR
G307_At	(485)	DPVLPSPEICGFPASDYDLKVI PGNAIYQFP AIDSSSSNNQNRLKSCSSPDSMVTSTS
G308_At	(486)	-----AEYDLKAIPGDAILNQFAIDSASSNQ-----GGDTYTTNKR
G309_At	(487)	-----SEYDLRAIPGSAVYPR-----DEHVTTRS
G3816-Ta	(488)	--YFDLPSPVSDSSSIYALRPIPSAGATAPADLSADSVRDPKRMRTGGSSTSSSSSSS
G3817_Os	(489)	SGFFELPAAADSSSSTYALRPISLPVATADPS-AADSARDTKRMRTGGSTSSSSSSS
G3818_Gm	(490)	-----LPYDFSDFLD-----
G3010_At	(491)	LTGKKSHWRDEDEDFVEERSNKQSAVYVEES-ELSEMFDKILVCGPGK-----PVC
G3826_Le	(492)	LREKKNRHR-GDVAADQQRSNKQMATFVHDESEPLEMYDNVLLCLNP-----YV
G644_At	(493)	VSKARKNSSRDEICVEEERSKKLPVFGEDI-LRSDVVVKILVHVPGGESMKEFNALRDV
G3823_Os	(494)	IRNHDPHPHEHIELMEARNSKHMAISTSET-IRDEMFDSELLCN-RQLPG-----EVAN
G3820_Os	(495)	LTDQRHSPYTTDLDILEGRNSKRYAITYCEI-IRNDMFDRLVLLCYGVENFA-----EASN
G1768_At	(496)	-----IDDAIC-HELMSWPDDA-----
G3815_Os	(497)	-----YNSPPSASCVTEITDLQIKLRELENAILGPELDIAYDSP-----
G3825_Le	(498)	-----SPSEDHLP EAPYSRNMKHTLLQLESALMGPDKEAMKSSPYLGENMGAQTSGQRYK
G852_At	(499)	-----YSPSMDVVVEEFDDEQMRSKIQELERALLGDEDDKMVGIDN-----
G3819_Os	(500)	-----CK
G1767_At	(501)	-----ATST

FIG. 19H

G3810_Gm	(212)	-----MMSL--SPSLGSPN-NLLFREMKSEERGLYLIHLLLTCAHVA--AG	42
G3811_Gm	(214)	-----MMSLSVSPSLGSP-----YHMKCELRGLVLIHLLLAGANFVA--TG	39
G3824_Le	(220)	-----	
G922_At	(4)	-----	
G3812_Gm	(479)	TSSVASSPLQVFTMSLNRPTLLASSSPFHCLKDLKPEERGLYLIHLLLTCAHVA--SG	68
G3814_Os	(218)	-----MDGLGSPS--QWLRELRWDSQGLNPIISLLIDCAKCAVA--SG	37
G3813_Os	(216)	SSATS-----SPASSVYSPSPSPSGSVWQELSHDQSVRLIGLLYQCAAEVS--AG	57
G3827_Os	(222)	SSSVTSSPLHNFNMPHPAAAAAPTTPWMVREL-R-SDERGLCLIHLLLNCAAAAA--AG	64
G306_At	(480)	NSRPHPEFRNDLRPSSSLAAGESESPKAVERLEREGCTRSGSSRRQPRRGAAAAAL--AV	64
G3821_Ps	(481)	DAPPQPETVTATVPAVQNTAEALRERKEEIKRQKQ-DEEGLHLLTLLLLQCAEAVS--AD	304
G3822_Zm	(482)	QQHP-EDLAPATTTTTSAEALARKKKEEIKEQKKKDEEGLHLLTLLLLQCAEAVS--AE	461
G2738_At	(483)	PKAPTAEEATAAAAAQAAAAAAKERKEEQRRKQ-R-DEEGLHLLTLLLLQCAEAVN--AD	313
G3009_At	(484)	IRLG-----SWCESSD-ESTRSVVLVDSQETGVRLVHALVACAEAIH--QE	194
G307_At	(485)	IRLG-----PWCDSVTSESTRSVVLI-E-ETGVRLVQALVACAEAVQ--LE	171
G308_At	(486)	TGTQIGGVIGTTVT--TTTTTAAAESTRSVILVDSQENGVRLVHALMACAEAIQ--QN	235
G309_At	(487)	LKCSNG-----VVETTTATAESTRHHVVLVDSQENGVRLVHALMACAEAVQ--KE	182
G3816-Ta	(488)	K-----RTRIESELSTRSVVVLVDSQETGVRLVHALMACAEAVQ--QN	166
G3817_Os	(489)	SLGGA-RSSVVEAAPVAAAANAT--PALPVVVDTQEA GIRLVHALLACAEAVQ--QE	248
G3818_Gm	(490)	SLGGGASRGSVVEAAPATQGAANAAPVAVVVDTQEA GIRLVHALLACAEAVQ--QE	255
G3010_At	(491)	-----LDTDQNQNHKPTLVTMEEDSGIRLVHTLMTCADSVQ--RG	138
G3826_Le	(492)	LNQNFPTESAKVVTAQSNGAKIRGKKST-STSHSNDSSKETADLRTLVLCAQAVS--VD	407
G644_At	(493)	EQHSATSITSYSPNEAKKTSKVGRPRG-GRKHSSIVKKEMVDLRALLTQCAQAMA--NY	300
G3823_Os	(494)	LKKGVEKKKASDAQGGKRRARGRGRGGGGQNGKKEVVDLRSLIHCAQAVA--AD	358
G3820_Os	(495)	LRGMMAKEASDNPKKFQSKGYGKGQRP---HSSKKKQKEAIDLSVLLIQCAQAI--SN	270
G1768_At	(496)	LRKIMTKQARKNSLNGQTR--GSAQRKL---RGMKQLKKDVEDLRNLLIHCAQAVA--AD	369
G3815_Os	(497)	-----KDLLL-----IVEAISRGDLKLVLVACAKAVS--EN	64
G3825_Le	(498)	-----ESALQPNIMATPENWRQLLGINTGDLKQVLIACGKAVA--EN	168
G852_At	(499)	AWNKEAQVVRHQQSVVSIILNGIQSKDRDNVMDLPLQGVPSNLKQLLIACARALA--EN	202
G3819_Os	(500)	LM EIDSEWSYQNESEQHODSPKESSADSNSHVSSKEVVSQATPKQILISCARALS--EG	236
G1767_At	(501)	QKVEAMEAMDTPATATFRVGAGDGGGGGAGGGGGGADGMRLVQLLVACAEAVA--CR	171
		PSSTAAAAAALASPYSSSGHHNDPSAFSIPQTPPSFDFSANAKWADSVLLEAARAFS--DK	157

FIG. 191

G3810_Gm	(212)	NLENANTTLEQISMLASPDG--DTMQRIATYFMESLADRIKLTWPGIHR-----ALNS--	93
G3811_Gm	(214)	DLQYAYLTLEQISQHASLDG--DTMQRIASYVSEALADRIKLTWPGIHR-----ALNS--	90
G3824_Le	(220)	-----MQRIASYFTEALADRIKLTWPGIHR-----ALNS--	29
G922_At	(4)	SLQANAALEQLSHLASPDG--DTMQRIAAAYFTEALANRIKLTWPGIHR-----ALNATQ	121
G3812_Gm	(479)	SIKNADIGLEYISQISSPDG--NAVQRMVTFSEALGYRIKLTWPGIHR-----SLNP--	88
G3814_Os	(218)	SFDRANLCLEHITQLASLDAP--HALQRLAAVFADALARKLLNLILGLSR-----ALLSS--	110
G3813_Os	(216)	RLDAANAALAHIAASLAAPDG--DAMQRVAAAFEAELARRALRAWPGLCR-----ALLP--	116
G3827_Os	(222)	ASAPSLASCCRRPFSIRKLLS--LPLHARVPVPPGSGMRQPLRPSPALHPR--GAAVAP--	119
G306_At	(480)	NLEEANKLLLEISQLSTPYG--TSAQRVAAAYFSEAMSAARLLNSCLGIYAA--LPSRWM	358
G3821_Ps	(481)	NLEQANKMLLEISQLSTPFG--TSAQRVAAAYFSEASARLVSSCLGIYAT--LPVSSH	515
G3822_Zm	(482)	NLDDAHQTLLEIAELATPFG--TSTQRVAAAYFAEAMSAARLVSSCLGLYAP--LPPGSP	367
G2738_At	(483)	NLNADALVKRVGTLAGSQAG--AMGKVATYFAQALARRIYRDYTAETDVC-----	243
G3009_At	(484)	NLSLADALVKRVGLLAASQAG--AMGKVATYFAEALARRIYRIHPSA-----	216
G307_At	(485)	NLTAEALVKQIGCLAVSQAG--AMRKVATYFAEALARRIYRLSPQ-----	280
G308_At	(486)	NLTVAEALVKQIGFLAVSQIG--AMRQVATYFAEALARRIYRLSPQ-----	227
G309_At	(487)	NLKLADALVKHVGLLASSQAG--AMRKVATYFAEGLARRIYRIYPRD-----	211
G3816-Ta	(488)	NLSAAEALVKQIPTLAASQGG--AMRKVAAAYFGEALARRVFRFPQPS-----	295
G3817_Os	(489)	NFAAAEALVKQIPTLAASQGG--AMRKVAAAYFGEALARRVYRFRP-ADS-----	301
G3818_Gm	(490)	DLAFAGSLIENMQGLLAHVNTNIGIKVAGYFIDALRRRIILGQGVFQTL-----	188
G3010_At	(491)	DRRTANEMLRQIREHSSPLGN--GSERLAHYFANSLEARLGTGTQIYTA-----LS	457
G3826_Le	(492)	DSRTANELLMRIREHSTPHGD--GTERLAHYLANALEARLSGTGTALYTA-----YA	350
G644_At	(493)	DRRCAGQLLKQIRLHSTPFGD--GNQRLAHCFAANGLEARLAGTGSQIYKG-----IV	408
G3823_Os	(494)	NHPFASSELLRKIRHHALPDGD--GSQRLANCFADGLEARLAGTGSQMYEK-----LM	320
G3820_Os	(495)	DRISASELVKKIRQHSSPDGD--SNQRLAFYLVLDGLEARLAGTGSQVYRK-----LM	419
G1768_At	(496)	NLLMARWCMGELRGMVSIISGE--PIQRLGAYMLEGLVARLAASGSSIYKS-----LQ	114
G3815_Os	(497)	DVRLTELLISELGQMVSVSGD--PIQRLGAYMLEGLVARLSSSGSKIYKS-----LK	218
G3825_Le	(498)	KLDDFEILVAKARSVSVTGD--PIQRLGAYIVEGLVARKELSGTTIYRS-----LK	252
G852_At	(499)	KLEEALSMVNELRQIVSIQGD--PSQRIAAVMVEGLAARMAASGKFIYRA-----LK	286
G3819_Os	(500)	DRAQAAAALLRELQAGAPVHGT--AFQRVASCFVQGLADRLPLAHPALGPASMAFCIPPS	229
G1767_At	(501)	DTARAQQILWTNLNELSSPYGD--TEQKLAASYFLQALFNMTGSGERCYRT---MVTAAAT	212

FIG. 19J

G3810_Gm	(212)	TRMTLISDEILVQKLFELFPFLKVAFVLTNQAIIEAMEGEK--VIHI IDLN-----AAEA	147
G3811_Gm	(214)	SRITMVSDEILVQKLFELFPFLKFSYILTNQAIIVEAMEGEK--MVHIVIDLY----GAGP	144
G3824_Le	(220)	TKLSVVSEEEILVRKMFEEIFPFLKVAFVVTNQAIIIEAMEGEK--MVHIVIDLN----AAEP	83
G922_At	(4)	TRTNVSEEEIHVRRLLFFEMFPILKVSYLLTNRAILEAMEGEK--MVHIVIDLD----ASEP	175
G3812_Gm	(479)	SKTSLSSDILVQKYFYELCPFLKFSYLITNHAIAEAMECEK--VVHI IDLH----CCEP	142
G3814_Os	(218)	ANSADAHLPVARRHMFVLPFLKLAYLTNTNHAILEAMEGER--FVHVVDVFSG--PAANP	166
G3813_Os	(216)	RASPTPAEVAARRHFDLCPFLRLAGAAANQSILEAMESEK--IVHVIDLG----GADA	170
G3827_Os	(222)	TRSPGAAVAGAEMRQQVSYC-WRPVRPPPPAGG---EEAGGEL--LLRGREL-----	164
G306_At	(480)	PQT-HSLKMVSFAQVFNGISPLVKFSHFTANQAIQEAFEKED--SVHI IDLD----IMQG	411
G3821_Ps	(481)	TP--HNQKVASAFQVFNGISPFVKFSHFTANQAIQEAFEREE--RVHI IDLD----IMQG	567
G3822_Zm	(482)	AAARLHGRVAAAFQVFNGISPFVKFSHFTANQAIQEAFEREE--RVHI IDLD----IMQG	421
G2738_At	(483)	-AAVNPSFEEVLEMHFYESCPYLKFAHFTANQAIIEAVTTAR--RVHVIDLG----LNQG	296
G3009_At	(484)	-AAIDPSFEEILQMNFYDSCPYLKFAHFTANQAIIEAVTTSR--VVHVIDLG----LNQG	269
G307_At	(485)	-NQIDHCLSDTLQMHFYETCPYLKFAHFTANQAIIEAFEGKK--RVHVIDFS----MNQG	333
G308_At	(486)	-SPIDHSLSDTLQMHFYETCPYLKFAHFTANQAIIEAFQGGK--RVHVIDFS----MSQG	280
G309_At	(487)	-DVALSSFSDTLQIHFYESCPYLKFAHFTANQAIIEVFATAE--KVHVIDLG----LNHG	264
G3816_Ta	(488)	-SLLDAAAFADLLHAHFYESCPYLKFAHFTANQAIIEAFAGCR--RVHVVDVG----IKQG	348
G3817_Os	(489)	-TLDDAAAFADLLHAHFYESCPYLKFAHFTANQAIIEAFAGCH--RVHVVDVG----IKQG	354
G3818_Gm	(490)	-SSSYPYEDNVLYHHYYEACPYLKFAHFTANQAIIEAFNGHD--CVHVIDFN----LMQG	241
G3010_At	(491)	SKKTSAADMLKAYQTYMSVCPFKKAAIIFANHSMRFT--ANANTIHIIDFG----ISYG	511
G3826_Le	(492)	PSRISAAANILKAYKAFIRACPFKLLSNIFANKYIRKVI--AGAPKIHIIDFG----ILYG	404
G644_At	(493)	SKPRSAAVLKAHQFLACCPFRKLSYFITNKTIRDVG--NSQRVHVVDVG----ILYG	462
G3823_Os	(494)	AKQTSTRDMLKAYHLYFVACPFEMVTYYFSNKTIIDALEGKT--TLHIVIDFG----ILFG	374
G3820_Os	(495)	ASRTSAESLLKAYSLSYLACPFERASEFAYANQTILDASKGQQPRKVHIVHFG----ICTG	475
G1768_At	(496)	SREPESYEFLSYVYVLHEVCYPYKFGYMSANGAIAEAMKDEE--RIHIIDFQ----IGQG	168
G3815_Os	(497)	CKEPTSSSELMSYMHLLEYICPFFKFGYMSANGAIAEAIKGEN--FVHIIDFQ----IAQG	272
G3825_Le	(498)	CKEPAGKDLFSYMYILEYICPYLKFGYMAANGAIVEACRNE--RIHIIDFQ----IAQG	306
G852_At	(499)	CKEPPSDERLAAMQVLFVEVCPCKFGFLAANGAILEAIKGE--EVHIIDFD----INQG	340
G3819_Os	(500)	SCAGRDGARGEALALAYELCPYLRFAHFVANACMLEAFEGES--NVHVVDLGMTLGLDRG	287
G1767_At	(501)	EKTCSFESTRKTVLKFEQEVSPWATFGHVAANGAILEAVDGEA--KIHIIDIS----STFC	266

FIG. 19K

G3810_Gm	(212)	AQWIALLRVLSAHP--EGPPHLRITGVHQKK-----EILDEVAHRLTTEAEKLDI	195
G3811_Gm	(214)	AQWISLLQVLSARP--EGPPHLRITGVHHKK-----EVLDOAHAKLTTEAEKLDI	192
G3824_Le	(220)	LQWRALLQDLSARP--EGPPHLRITGVHQKK-----EVLDOAHVLTQEAEEKLDI	131
G922_At	(4)	AQWLALLQAFNSRP--EGPPHLRITGVHHQK-----EVLQMAHRLIEEAEEKLDI	223
G3812_Gm	(479)	TQWIDLLLTFFKNRQ--GGPPHLKITGIHEKK-----EVLDOQMFHLTTEAGKLDI	190
G3814_Os	(218)	VQWIALFHAFRGR--EGPPHLRITAVHDSK-----EFLANMAAVLSKEAEAFDI	214
G3813_Os	(216)	TQWLELLHLLAARP--EGPPHLRLTSVHEHK-----ELLTQTAMALTKEAERLDV	218
G3827_Os	(222)	-LLLQLLLIYLVWD--GGTLLLELSIFFLL-----FCSLVTAMALTKEAERLDV	211
G306_At	(480)	LQWPGLFHILASRP--GGPPHVRLTGLGTSM-----EALQATGKRSLDFTDKLGL	459
G3821_Ps	(481)	LQWPGLFHILASRP--GGPPYVRLTGLGTSM-----ETLEATGKRSLDFANKLGL	615
G3822_Zm	(482)	LQWPGLFHILASRP--GGPPRVRLTGLGASM-----EALEATGKRSLDFADTLGL	469
G2738_At	(483)	MQWPALMQALALRP--GGPPSFRLTGIGPPQT-----ENSDSLQQLGWKLAQFAQNMGV	348
G3009_At	(484)	MQWPALMQALALRP--GGPPSFRLTGVGNP-----SNREGIQELGWKLAQLAQAI	319
G307_At	(485)	LQWPALMQALALRE--GGPPTFRLTGIGPPAP-----DNSDHLHEVGCKLAQLAEAIHV	385
G308_At	(486)	LQWPALMQALALRP--GGPPVFRLTGIGPPAP-----DNFDYLHEVGCKLAHLAEAIHV	332
G309_At	(487)	LQWPALIQALALRP--NGPPDFRLTGIGYSLT-----D-----IQEVGWKLGQLASTIGV	312
G3816_Ta	(488)	MQWPALLQALALRP--GGPPSFRLTGVGPPQP-----DETALQVVGWKLQFAHTIRV	400
G3817_Os	(489)	MQWPALLQALALRP--GGPPSFRLTGVGPPQP-----DETALQVVGWKLQFAHTIRV	406
G3818_Gm	(490)	LQWPALIQALALRP--GGPPLRLLTGIGPPSS-----DNRDTLREIGLRLAELARSVNV	293
G3010_At	(491)	FQWPALIHRLSLSRP--GGSPKLRTGIELPQRGF-----RPAEEFRRQVIAWLDTVSDTMF	566
G3826_Le	(492)	FQWPCLIQGLSMRA--GGPPELRTGIDLQPGF-----KPAGRVEETGRRLEKYCKRFSV	458
G644_At	(493)	FQWPTLIHRFSMYG----SPKVRITGIEFPQPGF-----RPAQRVEETGQRLAAYAKLFGV	514
G3823_Os	(494)	FQWPCLIQRLAKRE--GGPPKLRTGVDVPQPGF-----RPHERIEETGKRLAEYANMFNV	428
G3820_Os	(495)	FQWPSLIQRLANEE--GGPPKLRTGIDMPQPGF-----HPCEIIEETGKRLADYANLFKV	529
G1768_At	(496)	SQWIALIQAFARP--GGAPNIRITGVGD-----GSVLTVKKRLEKLAKKFDV	215
G3815_Os	(497)	SQWMTLIQALARP--GGPPFLRTGIDDSNSAY-----ARGGGLDIVGMRLYKVAQSFG	326
G3825_Le	(498)	TQWMTLLQALARP--GGAPYVRITGIDDPVSQY-----ARGDGLAAVARRLSAISEEFNI	360
G852_At	(499)	NQYMTLIRSIAELP--GKRPRLRTGIDDPESVQ-----RSIGGLRIIGLRLEQLAEDNGV	394
G3819_Os	(500)	HQWRGLLDGLAARAS--GKPARVRVTGVGARMD-----TMRAIGRELEAYAEGLGM	336
G1767_At	(501)	TQWPTLLEALATRS--DDTPHLRLTTVVVANKFVNDQTASHRMMKEIGNRMEKFARLMGV	324

* : K E L
FIG. 19L

G3810_Gm	(212)	PFQFN--PVASKLENLDFDKLR-----VKT GEAL A	ISSILQLHTLLAWDDEAMQRKSP	246
G3811_Gm	(214)	PFQFN--PVLSKLENLDFNKLKLR-----VKT GEAL A	ISSIMQLHSLALDEDAARRKSP	243
G3824_Le	(220)	PFQFN--QVVSRLENLDVEKLR-----VKT GEAL A	ISSIMQLHTLLAHNDK---KSP	179
G922_At	(4)	PFQFN--PVSRLDCLNVEQLR-----VKT GEAL AVSSVLQLHTFLASDDDLMRKNCA	274	
G3812_Gm	(479)	PLQFY--PVSCKLEDVDFEKLKLP-----VK GDAL A	ISSVLQLHSLLATDDDMAGRISP	241
G3814_Os	(218)	AFQFN--AVEAKLDEMDFDALRHDLG---VRS GEAL AVSVVLQLHRLLAVDGDR--RHAA	267	
G3813_Os	(216)	PFQFN--PVSRLDALDVESLRV-----KT GEAL A	ICSSLQLHCLLASDDDA-----	263
G3827_Os	(222)	PFQFN--PVSRLDALDVESLR-----		231
G306_At	(480)	PFEFC--PLAEKVGNLDTERLN-----VRKREAVAVHWLQHSLYDVTGSDAH-----	504	
G3821_Ps	(481)	PFEFF--PVAEKVGNIDVEKLN-----VSKSEAVAVHWLQHSLYDVTGSDTN-----	660	
G3822_Zm	(482)	PFEFC--AVAEKAGNVDPKLG-----VTRREAVAVHWLHLSLYDVTGSDSN-----	514	
G2738_At	(483)	EFEFKG-LAAESLSLEPEMFETRPE-----SETLVNSVFELHRLRLARSG-----	393	
G3009_At	(484)	EFKFNG-LTTERLSLEPDMFETRTE-----SETLVNSVFELHPVLSQPG-----	364	
G307_At	(485)	EFEYRG-FVANSLADLDASMLELRPSD-----TEAVAVNSVFELHKLGRPG-----	431	
G308_At	(486)	EFEYRG-FVANTLADLDASMLELRPSE-----IESVAVNSVFELHKLGRPG-----	378	
G309_At	(487)	NFEFKS-IALNNLSDLKPEMLDIRPG-----LESVAVNSVFELHRLLAHPG-----	357	
G3816-Ta	(488)	DFQYRG-LVAATLADLEPFMLQPEGEEDNPEEPEVIAVNSVFEMHRLLAQPG-----	451	
G3817_Os	(489)	DFQYRG-LVAATLADLEPFMLQPEGEADANEEPEVIAVNSVFELHRLLAQPG-----	457	
G3818_Gm	(490)	RFAFRG-VAAWRLEDVKPWMLQVNP-----EAVAVNSIMQLHRLLASDSDPI-----	340	
G3010_At	(491)	RLSTT--QLLRNGETIQVEDLKLKLR-----QGEYVVVNSLFRFRNLLDETVLN-----	612	
G3826_Le	(492)	PFVFK--AIAKKWESITLEELEVQ-----RDEVLVVNSLYRLGNIPDETVPN-----	504	
G644_At	(493)	PFEYK--AIAKKWDAIQLEDLDID-----RDEITVVNCLYRAENLHDESVKVE-----	560	
G3823_Os	(494)	PFQYH--GIASRWETICIEDLSID-----KDEVLIINCMRMRKLGDETENID-----	474	
G3820_Os	(495)	PFQYQ--GIASRWETVQIEDLNID-----KDEVLIIVNCMFRMKNLGDENVSMN-----	575	
G1768_At	(496)	PFRFN--AVSRPSCVEVEVENLDVR-----DGEALGVNFAYMLHHLPDSEVSME-----	261	
G3815_Os	(497)	PFEFN--AVPAASHEVYLEHLDIR-----VGEVIVVNFAYQLHHTPDSEVSTE-----	372	
G3825_Le	(498)	AVEFH--AVPVFAPEITWMDLDIR-----PGEALAVNFPLQLHHTPDSEVDVN-----	406	
G852_At	(499)	SFKFK--AMPSKTSIVSPSTLGCK-----PGETLIVNFAFQLHHPDESVTTV-----	440	
G3819_Os	(500)	YLEFR--GINRGLESIHIDDLGVD-----ADEAVAINSVLELHSHSVKESRGALN-----	383	
G1767_At	(501)	PFKFNIIHHVGDLSSEFDLNELDVK-----PDEVLAIVCVGAMHGIASRGS-----	369	
	(661)	.	GEAL A	

FIG. 19M

G3810_Gm	(212)	LLLKSS-NGIHLQQRVLP	MGQSTGLD	LLEKDMVN-----	GYTPSPDSTSSSPSSLT	295
G3811_Gm	(214)	LLSKNS-NAIHLQKGLIMN	HTLGDLLD-----	GYSPSPDSASSSPAASS	287	
G3824_Le	(220)	LPFKHS-NGVNINRALVN-Q	NTLGEFLEKDMAN-----	GCSPSNDTASSSPICST	227	
G922_At	(4)	LRFQNNPSGVDLQ	RVLMMSHGSAEARENDMSNN-----	GYSPSGDSASSLPSPSS	326	
G3812_Gm	(479)	AAAAASM-----	NVQRALHMGQRTFAEWLERDMIN-----	AYTLPDSALS-PLSLG	286	
G3814_Os	(218)	AGCLTP-----	VQIIARSSPRSFELLERELNTRLQ	SPDASVVSSLSPHSPAAATAAHP	322	
G3813_Os	(216)	-----	-----	AAVAGDKERRSPESGL	280	
G3827_Os	(222)	-----	-----	-----	-----	
G306_At	(480)	-----	-----	-----	-----	
G3821_Ps	(481)	-----	-----	-----	-----	
G3822_Zm	(482)	-----	-----	-----	-----	
G2738_At	(483)	-----	-----	-----	-----	
G3009_At	(484)	-----	-----	-----	-----	
G307_At	(485)	-----	-----	-----	-----	
G308_At	(486)	-----	-----	-----	-----	
G309_At	(487)	-----	-----	-----	-----	
G3816-Ta	(488)	-----	-----	-----	-----	
G3817_Os	(489)	-----	-----	-----	-----	
G3818_Gm	(490)	-----	-----	-----	-----	
G3010_At	(491)	-----	-----	-----	-----	
G3826_Le	(492)	-----	-----	-----	-----	
G644_At	(493)	-----	-----	-----	-----	
G3823_Os	(494)	-----	-----	-----	-----	
G3820_Os	(495)	-----	-----	-----	-----	
G1768_At	(496)	-----	-----	-----	-----	
G3815_Os	(497)	-----	-----	-----	-----	
G3825_Le	(498)	-----	-----	-----	-----	
G852_At	(499)	-----	-----	-----	-----	
G3819_Os	(500)	-----	-----	-----	-----	
G1767_At	(501)	-----	-----	-----	-----	

FIG. 19N

G3810_Gm	(212)	TNSRPRGRFLNALWGLSPKVMVVTQDCNHNGP-----TLMDRLLEALYSYAALFDC	348
G3811_Gm	(214)	SALMNSES--FLNALWGLSPKVMVVTQDFNHNCL-----TMMERLAEALFSYAAAYFDC	339
G3824_Le	(220)	GS-TKMDS--FLNALWGLSPKVMVVTQDANHNGT-----TLMERLSESLHFYAALFDC	278
G922_At	(4)	GR---TDS--FLNAIWGLSPKVMVVTQDSDHNGS-----TLMERLLESLYTYAALFDC	375
G3812_Gm	(479)	AS--PKMGIFLNAIRKLQPKLVITEQESNLNGS-----NLMERVDRALYFYSALFDC	337
G3814_Os	(218)	TTSTPKLGSFLSAVRSLSPKIMVTQEANHNGG-----AFQERFDEALNYYASLFDC	375
G3813_Os	(216)	SPSTRADAFGLWGLSPKVMVVAEQEASHNAA-----GLTERFVEALNYYAALFDC	333
G3827_Os	(222)	-----GLSLKVMVVTQEVSHNAA-----GLTERFVEALNYYAALFDC	269
G306_At	(480)	-----TLWLLQRLAPKVVTVVEQDLSHAG-----SFLGRFVEAIHYYSALFDS	547
G3821_Ps	(481)	-----TLWLLQRLAPKVVTVVEQDLSNAG-----SFLGRFVEAIHYYSALFDS	703
G3822_Zm	(482)	-----TLWLIQRLAPKVVTVVEQDLSHSG-----SFLARFVEAIHYYSALFDS	557
G2738_At	(483)	-----SIEKLLNTVKAIKPSIVTVVEQEANHNGI-----VFLDRFNEALHYSSSLFDS	441
G3009_At	(484)	-----SIEKLLATVKAVKPGLVTVVEQEANHNGD-----VFLDRFNEALHYSSSLFDS	412
G307_At	(485)	-----GIEKVLGVVKQIKPVIFTVVEQESNHNGP-----VFLDRFTESLHYYSTLFDS	479
G308_At	(486)	-----AIDKVLGVVNQIKPEIFTVVEQESNHNSP-----IFLDRFTESLHYYSTLFDS	426
G309_At	(487)	-----SIDKFLSTIKSIRPDIMTVVEQEANHNGT-----VFLDRFTESLHYSSSLFDS	405
G3816-Ta	(488)	-----ALEKVLGTVRAVRPRIVTVVEQEANHNSG-----TFLDRFTESLHYYSTMFDS	499
G3817_Os	(489)	-----ALEKVLGTVHAVRPRIVTVVEQEANHNSG-----SFLDRFTESLHYYSTMFDS	505
G3818_Gm	(490)	-----GSGIETVLGWIRSLNPKIISVVEQEANHNQD-----RFLERFTEALHYYSTVFD	390
G3010_At	(491)	-----SPRDAVLKLRKINPNVFIIPAILSGNYNAP-----FFVTRFREALFHFSSLYDM	661
G3826_Le	(492)	-----SPRDAVLNLRIRRPDLFIHGALNGTFNTP-----FFVTRFREALFHFSSLYDM	553
G644_At	(493)	-----SCRDTVNLIGKINPDLFVFGIVNGAYNAP-----FFVTRFREALFHFSSIFDM	609
G3823_Os	(494)	-----SARDRVLHMMKRMNPQVILGVNGLYSSP-----FFLTRFREVLHFHYSSSLFDM	523
G3820_Os	(495)	-----SARDRVLKIMRMMPRVFILGIVNGSYSSP-----FFITRFKEVLHFHYSSSLFDM	624
G1768_At	(496)	-----NHRDRLLRMVKSLSPKVVTLVEQECNTNTS-----PFLPRFLETLSYYTAMFES	310
G3815_Os	(497)	-----NHRDRILRMVKSLSPRLVTLVEQESNTNTR-----PFFPRYLETLDDYYTAMFES	421
G3825_Le	(498)	-----NPRDGLIRMIKSLSPKIVTLVEQESNTNTA-----PFLPRFVEALDYYHAMFES	455
G852_At	(499)	-----NQRDELLHMVKSLNPKLVTVVEQDVNTNTS-----PFFPRFIEAYEYYSAVFES	489
G3819_Os	(500)	-----SVLQTIIRKLSPPRAFLVLEQDAGHNGP-----FFLGRFMEALHYAALFDA	428
G1767_At	(501)	-----PRDAVISSFRRLRPRIVTVVVEEADLVGEEEGGDFDEFLRGFGECLRWFRVCFES	424

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FIG. 190

G3810_Gm	(212)	LEST-----VSR	TSLERLRVEKMLFG	EEIKNI	IACE-G	SERKERHEKLEK	392	
G3811_Gm	(214)	LEST-----VSR	ASMDRLKLEKMLF	GEEIKNI	IACE-G	CERKERHEKMDR	383	
G3824_Le	(220)	LEST-----LP	TSLERLKVEKMLL	GEEIRNI	IACE-G	IERKERHEKLEK	322	
G922_At	(4)	LETK-----VP	TSQDRIKVEKMLF	GEEIKNI	ISCE-G	FERRERHEKLEK	419	
G3812_Gm	(479)	LDST-----VM	KTSVERQKLESKL	GEQIKNI	IACE-G	VDRKERHEKLEK	381	
G3814_Os	(218)	LQRS-----A	AAAA-ERARVER	LLGEEIR	GVVACE-G	AERVERHERARQ	418	
G3813_Os	(216)	LEVG-----A	AGSVERARVERW	LLGEEIKN	IVACD-G	GERRERHERLER	377	
G3827_Os	(222)	LEVG-----G	AGSVERTRVERW	LLGEEIKN	IVACD-G	GERRERHER---	310	
G306_At	(480)	LGAS-----Y	GEESEERHVVEQ	LLSKEIRN	VLAVG-G	PSR-SGEVKFES	590	
G3821_Ps	(481)	LGSS-----Y	GEESEERHVVEQ	LLSREIRN	VLAVG-G	PSR-SGEIKFHN	746	
G3822_Zm	(482)	LDAS-----Y	GEDSPERHVVEQ	LLSREIRN	VLAVG-G	PAR-TGDVKFGS	600	
G2738_At	(483)	LED-----S	YSLPSQDRVMSE	VYLGRQIL	NVAAE-G	SDRVERHETAAQ	484	
G3009_At	(484)	LED-----G	VIPSQDRVMSE	VYLGRQIL	NLVATE-G	SDRIERHETLAQ	455	
G307_At	(485)	LE-----G	VNSQDKVMSE	VYLKGQIC	NLVACE-G	PDRVERHETLSQ	520	
G308_At	(486)	LE-----G	VPSGQDKVMSE	VYLKGQIC	NVVACD-G	PDRVERHETLSQ	467	
G309_At	(487)	LE-----G	PP-SQDRVMSEL	FLGRQIL	NLVACE-G	EDRVERHETLNQ	445	
G3816-Ta	(488)	LEGSSGGGPSE	VSSGAAAAPAA	AGTDQVMSE	VYLGRQIC	NVACE-GA	ERTERHETLGQ	558
G3817_Os	(489)	LEGSSG--Q	AELSP--PAAGG	GGTDQVMSE	VYLGRQIC	NVACE-GA	ERTERHETLGQ	560
G3818_Gm	(490)	LEA-----C	PVEPKALAEMY	LQREIC	NVSSSE-G	PARVERHEPLAK	431	
G3010_At	(491)	CDSK-----L	AREDEMRLMYE	KEFYGREI	VNVVACE-G	TERVERPETYKQ	705	
G3826_Le	(492)	FEAT-----L	PREDEDRKLFEE	VFARDAMN	VIACE-G	TERVERPETYKQ	597	
G644_At	(493)	LETI-----V	PREDEERMFL	EME	VFGREALN	VIACE-GW	ERVERPETYKQ	653
G3823_Os	(494)	LDNN-----V	PNHEARILVEK	DLFGNDAL	NAVACE-G	AERIERPESYKQ	567	
G3820_Os	(495)	IDAN-----V	PDNEARKMIEG	GLFGQEA	LNVIACE-G	AERTERPESYKQ	668	
G1768_At	(496)	IDVM-----L	PNHKERINIEQ	HCMARDV	VNVIACE-G	AERIERHELLGK	354	
G3815_Os	(497)	IDVA-----L	PRDDKRMSAEQ	HCVARDIV	NLIACE-G	AERVERHEVFGK	465	
G3825_Le	(498)	IDVT-----L	LDMKERINVEQ	HCLARDIV	NVIACE-G	KERVERHELLGK	499	
G852_At	(499)	LDMT-----L	PRESQERMNVE	QCLARDIV	NVIACE-G	EERIEREAAAGK	533	
G3819_Os	(500)	LDAA-----L	PRYDARRARVE	QHFGAEIR	NVVGCE-G	AARVERHERADQ	472	
G1767_At	(501)	WEES-----F	PTSNERLMLER	-AAGRAI	VDLVACE-P	SDSTERRETARK	467	

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FIG. 19P

G3810_Gm	(212)	WFQFDLAGFGNVPLSYFGMVQARRFLQSYGCEG-YRMRDENG--CVLICWEDRPMYSIS	449
G3811_Gm	(214)	WIQRDLSGFANVPISYGYMLQRRFLQTYGCEG-YKMREECG--RVMICWQERSLFSIT	440
G3824_Le	(220)	WFQFDTSGFGNVPLSYAMLQARRLLQSYSCG-YKIKEDNG--CVVICWQDRPLFSVS	379
G922_At	(4)	WSQRIDLAGFGNVPLSYAMLQARRLLQCGGFDG-YRIKEESG--CAVICWQDRPLYSVS	476
G3812_Gm	(479)	WIRREMAGFEKVPPLSYNGRLEAKNLLQRYSNK--YKFREEND--CLLVCWSDRPLFSRA	437
G3814_Os	(218)	WAARMEAGMERVGLSYSGAMEARKLLQSCGWAGPYEVVRHDAGHGFFCWHKRPLYAVT	478
G3813_Os	(216)	WARRLEGAGFGRVPLSYALLQARRVAQGLGCDG-FKVREEKG--NFFLCWQDRALFSVS	434
G3827_Os	(222)	----LEGAGFGRVPLSYALLQARRVAQGLGCDG-FKVREEKG--NFFLCWQDRALFSVS	363
G306_At	(480)	WREKMQCCGFKGISLAGNAATQATLLGMFPSDG-YTLVDDNG--TLKLGWKDLSLLTAS	647
G3821_Ps	(481)	WREKLQCCGFRGVSLAGNAATQASLLGMFPSEG-YTLVEDNG--ILKLGWKDLCLLTAS	803
G3822_Zm	(482)	WREKLAQSGFRAASLAGSAAQAASLLGMFPSDG-YTLVEENG--ALKLGWKDLCLLTAS	657
G2738_At	(483)	WIRMKSAQFDPHILGSSAFKQASMLLSLYATGDGYRVEENDG--CLMIGWQTRPLITTS	542
G3009_At	(484)	WRKRMGSAGFDPVNLGSDAFKQASLLLSLGGDGYRVEENDG--SLMLAWQTKPLIAAS	513
G307_At	(485)	WGNRFGSSGLAPAHLGSAFAKQASMLLSVFNSSGQGYRVEESNG--CLMLGWHTRPLITTS	578
G308_At	(486)	WNRFGSAGFAAAHIGSNAFAKQASMLLALFNNGEGYRVEESDG--CLMLGWHTRPLIATS	525
G309_At	(487)	WNRFGGLGFKPVSIGSNAYKQASMLLALYAGADGYNVEENEG--CLLLGWQTRPLIATS	503
G3816-Ta	(488)	WNRRLGNAGFETVHLGSNAYKQASTLLALFAGGDGYKVEEKEG--CLTLGWHTRPLIATS	616
G3817_Os	(489)	WNRRLGRAGFEPVHLGSNAYKQASTLLALFAGGDGYRVEEKEG--CLTLGWHTRPLIATS	618
G3818_Gm	(490)	WRERLEKAGFKPLHLGSNAYKQASMLLTLS-AEGYSVEENQG--CLTLGWHSRPLIAAS	488
G3010_At	(491)	WQARLIRAGFRQLPLEKELMQNLKLIENGYD-KNFDVDQNGN--WLLQGWKGRIVYASS	762
G3826_Le	(492)	WQLRCVRAQFKQVPLDQEIIVKIVRNKVRSEYH-RDFSVDDEGH--WMLQGWKGRVIYALS	654
G644_At	(493)	WHVRAMRSGLVQVPFDPSPIMKTSLHKVHTFYH-KDFVIDQDNR--WLLQGWKGRVTVMALS	710
G3823_Os	(494)	WQMRILRAGFKQRPVNQAILNRSVHYKE-FYH-EDFVIDEDSG--WLLQGWKGRIIQALS	623
G3820_Os	(495)	WQARCLKAGFKQLPVPDPATLKEIINMKKGIYH-EDFVADDEGA--WLLQGWKGRVIYALS	725
G1768_At	(496)	WKSRSFMSAGFEPYPLS-SIISATIRALLRD-YSNGYAIEERDQ--ALYLGWMDRILVSSC	410
G3815_Os	(497)	WKARLTMAGFRPYPLS-SVVNSTIKTLHT-YNSFYRLEERDQ--VLYLGWKNRVLVVSS	521
G3825_Le	(498)	WKSRSFMMAGFQQYPLS-SYVNSVIKDLMKR-YSEHYTLVEKDQ--AMLLGWKERNLVSAS	555
G852_At	(499)	WRARMMMAGFNPKPMS-AKVTNNIQNLKIQQYCNKYKLKEEMG--ELHFCWEKSLIVAS	590
G3819_Os	(500)	WRRRMSRAGFSQVPIKMAAKAR--EWLDENAGGGGYTVAEEKG--CLVLGWKKGKPVIAAS	528
G1767_At	(501)	WSRRMRNSGFGAVGYSDEVADDVALLRRRYKEGVWSMVQCPDAA-GIFLCWRDQPVVWAS	526

* : SY RR Q C* :

FIG. 19Q

G3810_Gm	(212)	AWRSRK-----	455
G3811_Gm	(214)	AWRPRK-----	446
G3824_Le	(220)	SWCRK-----	385
G922_At	(4)	AWCRK-----	482
G3812_Gm	(479)	EF-----	439
G3814_Os	(218)	AWRPAASRRGHTLH-----GRRSEGTRESVPWPPR-----	508
G3813_Os	(216)	AWGRRFD-----	442
G3827_Os	(222)	AWGRRRFAALLPLPPSTPLPCSRVIATLLSSPPPPCSPLHPYCPERRRMKGEKKGKRE-----	422
G306_At	(480)	AWTPRS-----	653
G3821_Ps	(481)	AWRPPYHTNTIIPHNN-----	819
G3822_Zm	(482)	AWRPIQVPPCR-----	668
G2738_At	(483)	AWKLA-----	547
G3009_At	(484)	AWKLADELRR-----	523
G307_At	(485)	AWKLSTAAH-----	587
G308_At	(486)	AWKLSTN-----	532
G309_At	(487)	AWRINRVE-----	511
G3816-Ta	(488)	AWRLAGP-----	623
G3817_Os	(489)	AWRVAAA-----	625
G3818_Gm	(490)	AWQAAPMQDRETLRFEQ-----	505
G3010_At	(491)	LWVP-----SSS-----	769
G3826_Le	(492)	CWKP-----TKQSVKLV-----	666
G644_At	(493)	VWKP-----ESKA-----	718
G3823_Os	(494)	TWKV-----ET-----	629
G3820_Os	(495)	TWKP-----NESYLDQ-----	736
G1768_At	(496)	AWK-----	413
G3815_Os	(497)	AWC-----	524
G3825_Le	(498)	AWF-----	558
G852_At	(499)	AWR-----	593
G3819_Os	(500)	CWKC-----	532
G1767_At	(501)	AWRPT-----	531

.

FIG. 19R

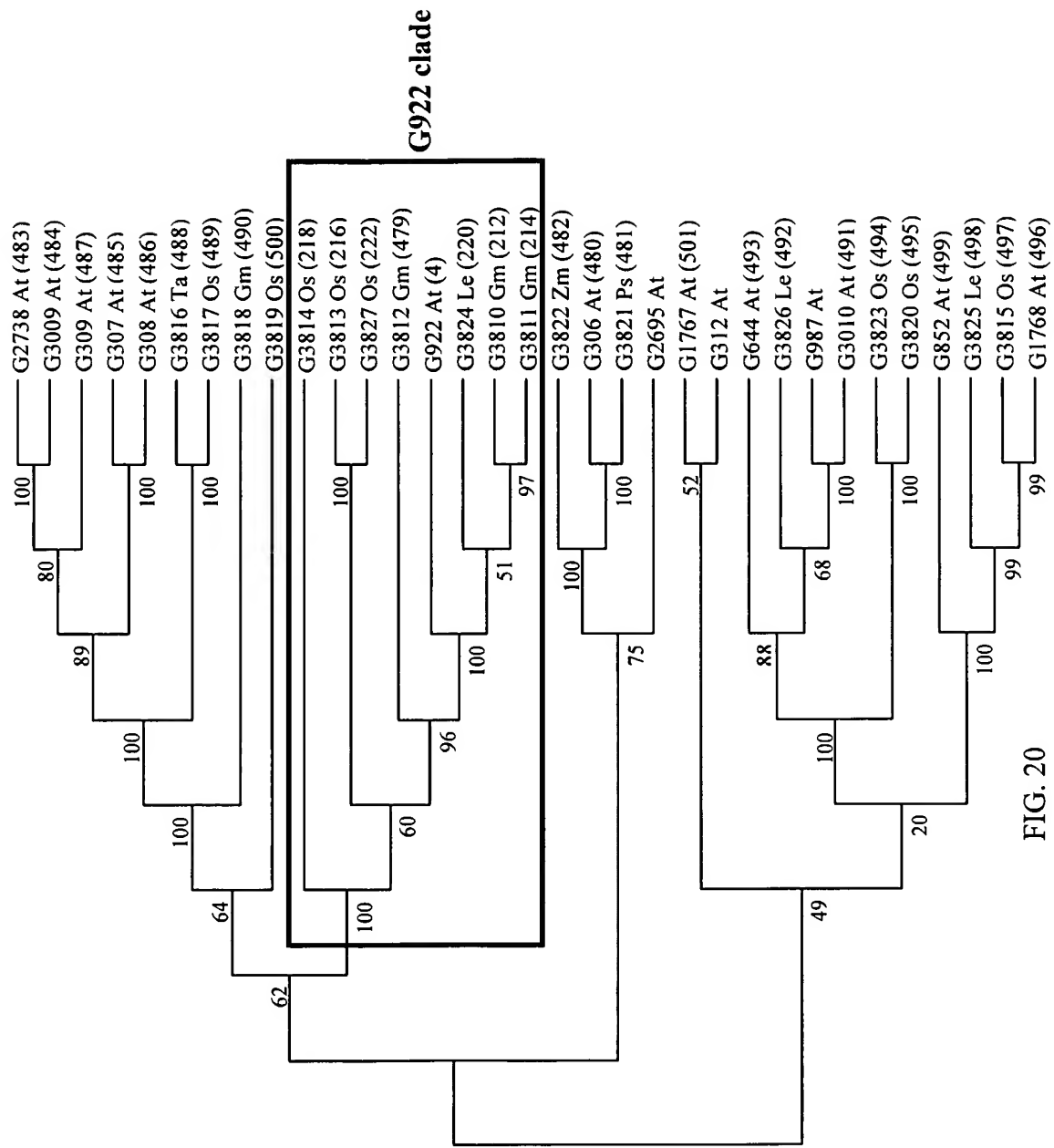


FIG. 20

10

20

G3728_Z_mays(148)	
G3804_Z_mays(210)	
G3802_S_bicolor(206)	
G3727_Z_mays(146)	
G3721_O_sativa(134)	
G3730_O_sativa(152)	
G3719_Z_mays(130)	
G3725_O_sativa(142)	M A A A A
G3722_Z_mays(136)	
G3733_H_vulgare(158)	M A A V G
G3726_O_sativa(144)	M A A V G
G3720_Z_mays(132)	M A A V G
G3729_O_sativa(150)	M S S L Y P S L L S L
G3797_L_sativa(204)	
G3795_C_anuum(202)	
G1275_A_thaliana(30)	
G1274_A_thaliana(6)	
G1758_A_thaliana(32)	
G3732_S_tuberosum(156)	
G3731_L_esculentum(154)	
G3724_G_max(140)	
G3723_G_max(138)	
G3803_G_max(208)	
G194_A_thaliana(527)	M E F T D F S K T S F Y Y P S S Q -
G2517_A_thaliana(529)	M E N V G V G M P F Y D L G Q T R V Y P L L S - -
G179_A_thaliana(531)	
G2688_A_thaliana(533)	
G1956_A_thaliana(535)	M G A I N Q G I S L F D E S Q T V I N P I N T N
G181_A_thaliana(537)	
G1931_A_thaliana(539)	
G1012_A_thaliana(541)	
G1420_A_thaliana(543)	M E K K K E E D H H H Q Q Q Q Q Q K E I K N T
G2290_A_thaliana(545)	M N - - - D P D N P D - - - - - - - L S N -
G2575_A_thaliana(547)	M D D H V E H N Y N T S L E E V H F K - -
G195_A_thaliana(549)	M S H E I K D L N N Y H Y T S S Y N H Y N I N N Q
G187_A_thaliana(551)	M S N E T R D L Y N Y Q Y P S S F S L H E M M N L
G1013_A_thaliana(553)	

FIG. 22A

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	30	40	50
G3728_Z_mays(148)			M A T
G3804_Z_mays(210)			M A T
G3802_S_bicolor(206)			M Q M A A
G3727_Z_mays(146)			M A A
G3721_O_sativa(134)			M A A
G3730_O_sativa(152)		M A A S L G L C H	
G3719_Z_mays(130)			M A
G3725_O_sativa(142)	A G A S T P F N F C R H G	S H A E Y D A V F S G S	
G3722_Z_mays(136)		M H M A L S S R S S F A	
G3733_H_vulgare(158)	A A P V L Y Q Q Q - - - -	A Q A V G D A C F F S S	
G3726_O_sativa(144)	A H A A V Y H H P V S G L	S A P A G D A A Y - - S	
G3720_Z_mays(132)	A H P V L Y H H P - - - -	- A P A G D A S - - - S	
G3729_O_sativa(150)	S - - - - - - - - - -	- E S P A E Y R Q V G G	
G3797_L_sativa(204)		M N Y Y D H Q M S K A	
G3795_C_anuum(202)			M L D
G1275_A_thaliana(30)		M N D A D T N L G	
G1274_A_thaliana(6)			M N I
G1758_A_thaliana(32)			M N Y
G3732_S_tuberosum(156)		M E N F P Y S	
G3731_L_esculentum(154)		M E N F P Y S	
G3724_G_max(140)		M D F Y F G	
G3723_G_max(138)		M D Y Y F G	
G3803_G_max(208)		M D Y Y F G	
G194_A_thaliana(527)	- - - - - - - - - -	- S V W D F G D L A A A	
G2517_A_thaliana(529)	- - - - - - - - - -	- - - D F H D L S A -	
G179_A_thaliana(531)			
G2688_A_thaliana(533)			
G1956_A_thaliana(535)	H L G F F F S F P S H S T L S S S S S S S S S S P		
G181_A_thaliana(537)			M
G1931_A_thaliana(539)			M E
G1012_A_thaliana(541)			
G1420_A_thaliana(543)	E T K I - - - - - - - -	- E Q E Q E Q E Q K Q E I S	
G2290_A_thaliana(545)	- - - - - - - - - -	- - - D D S A W R E L T	
G2575_A_thaliana(547)	- - - - - - - - - -	- - - S L S D - - - -	
G195_A_thaliana(549)	N M I N L P Y V S G P S A Y N A N M I S S S S Q V G		
G187_A_thaliana(551)	P T S N P S S Y G N L P S Q N G F N P S T Y S F T		
G1013_A_thaliana(553)		M E E E G Y Q W A	

FIG. 22B

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	60	70
G3728_Z_mays(148)	S L G L N P E D L F T S	- - - - -
G3804_Z_mays(210)	S L G L N P E D L F T S	- - - - -
G3802_S_bicolor(206)	S L G L N P E A L F A S	- - - - -
G3727_Z_mays(146)	S L G L N P E A V F T S	- - - - -
G3721_O_sativa(134)	S V G L N P E A F F F S	- - - - -
G3730_O_sativa(152)	E T S Y A Y S Y P A S N	- - - - -
G3719_Z_mays(130)	D D Y F Q F G F T G Q E	- - - - -
G3725_O_sativa(142)	W M A R R P S A A P H G	- - - - -
G3722_Z_mays(136)	A D V L L P A T M S Y R	- - - - -
G3733_H_vulgar(158)	M S S Y F S N E A I S S	- - - - -
G3726_O_sativa(144)	M S S Y F S H G G - S -	- - - - -
G3720_Z_mays(132)	M S S Y F S H G G - S S	- - - - -
G3729_O_sativa(150)	G R Y A G E D V V D D D	- - - - -
G3797_L_sativa(204)	Y S Y R S V D S P D M D	- - - - -
G3795_C_anuum(202)	G S F R S L D S P D S D	- - - - -
G1275_A_thaliana(30)	S S F S D D T H S V F E F P	- - - - -
G1274_A_thaliana(6)	S Q N P S P N F T Y F S D E	- - - - -
G1758_A_thaliana(32)	P S N P N P S S T D F T	- - - - -
G3732_S_tuberosum(156)	S S N P N P N - - - -	- - - - -
G3731_L_esculentum(154)	S S N P N P N - - - -	- - - - -
G3724_G_max(140)	N S P P Y P N - N Y A H	- - - - -
G3723_G_max(138)	N L N P N P Y - Y H H S	- - - - -
G3803_G_max(208)	N P N P K P Y D N R H S	- - - - -
G194_A_thaliana(527)	E R H S L G F M E L L S	- - - - -
G2517_A_thaliana(529)	E R Y P V G F M D L L G	- - - - -
G179_A_thaliana(531)	M E D R	- - - - -
G2688_A_thaliana(533)	M E G Y D	- - - - -
G1956_A_thaliana(535)	S S L V S P F L G H N S L N S F L H N	- - - - -
G181_A_thaliana(537)	D R E D I N P M L S R L	- - - - -
G1931_A_thaliana(539)	G V D N T N P M L T L E	- - - - -
G1012_A_thaliana(541)		
G1420_A_thaliana(543)	Q A S S S S N M A N L V T S S D H H P L E L A G N	
G2290_A_thaliana(545)	L T A Q D S D F F D R	- - - - -
G2575_A_thaliana(547)	- C L Q S S L V M D Y N	- - - - -
G195_A_thaliana(549)	F D L P S K N L S P Q G	- - - - -
G187_A_thaliana(551)	D C L Q S S P A A Y E S	- - - - -
G1013_A_thaliana(553)	R R C G N N A V E D P F	- - - - -

FIG. 22C

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	80	90	100
G3728_Z_mays(148)	- - - - Y S S S Y Y S S P P F M S D Y A A S F T P		
G3804_Z_mays(210)	- - - - Y S S S Y Y S S P P F M S D Y A A S F T P		
G3802_S_bicolor(206)	- - - - Y S S A Y S S S S P F V S D Y A A S F P A		
G3727_Z_mays(146)	- - - - Y T S S P - - P F M S D Y V A A S F L P P		
G3721_O_sativa(134)	- - - - N S Y S Y S - S S P F M A S Y T P E F S A		
G3730_O_sativa(152)	- - - - T S S S L C F P P L M A D H I V D G - - -		
G3719_Z_mays(130)	- - - - M V A D D C S A P V F A N S S S D A V T A		
G3725_O_sativa(142)	- - - - G G A S G S G S G S G - Y G A A S Y V A P		
G3722_Z_mays(136)	- - - - Q P C S G A S S Y L G S Q P A A P F P S A		
G3733_H_vulgare(158)	- - - - S C S S P A S S F S A A L G A T P P A A P		
G3726_O_sativa(144)	- - - - S T S S S A S S F S A A L A A A T T P P L		
G3720_Z_mays(132)	- - - - T T S S S A S S F T A A L A P T T T A L A		
G3729_O_sativa(150)	- - - - D D M A A V A D A V S S Y L S F D M D D V		
G3797_L_sativa(204)	- - - - Y D V P N Q Q T Y E F V E S F L S F D D W		
G3795_C_anuum(202)	- - - - D F S N H L I N F E L S D I L E I D N W		
G1275_A_thaliana(30)	- - - E L D L S D E W M D D D L V S A V S G M N Q		
G1274_A_thaliana(6)	- - - N F I N P F M D N N D F S N L M F F D I D E		
G1758_A_thaliana(32)	- - - - E F F K F D D F D D T F E K I M E E I		
G3732_S_tuberosum(156)	- - - - F I D A - S E N F E L S D Y N Y L F L D D		
G3731_L_esculentum(154)	- - - - F I D A - S E N F E L S D Y N Y L F L D D		
G3724_G_max(140)	- - - N S L N M A L S S P E I A L S D Y L M L D D		
G3723_G_max(138)	- - - A V V N M A S P S S E F M L S D Y L V L E D		
G3803_G_max(208)	- - - A V V N T E S P S S E F M L S D Y L V L E D		
G194_A_thaliana(527)	- - - - - - S Q Q H Q D F A T V S P H S F L L Q		
G2517_A_thaliana(529)	- - - - - - V H R H T P T H T P - - - - - -		
G179_A_thaliana(531)	- - - - - - R C D V L F P C S S S V D P R L T E F		
G2688_A_thaliana(533)	- - - - - - N G S L Y A P F L S L K S H S K P E L		
G1956_A_thaliana(535)	- - - - N P S S F I S H P Q D S I N L M T N L P E		
G181_A_thaliana(537)	- - - - - - D V E N N N T F S S F V D K T L M M M		
G1931_A_thaliana(539)	- - - - - - E G E N N N P F S S L D D K T L M M M		
G1012_A_thaliana(541)			
G1420_A_thaliana(543)	L S S I F D T S S L P F P Y S Y F E D H S S N N P		
G2290_A_thaliana(545)	- - - - - D T S N I L S D F G W N L H H S S D H P		
G2575_A_thaliana(547)	- - - S L E K V F K F S P Y S S P F Q S V S P S V		
G195_A_thaliana(549)	- - - A F E L G F E L S P S S S D F F N P S L D Q		
G187_A_thaliana(551)	- - - L L Q K T F G L S P S S S E V F N S S I D Q		
G1013_A_thaliana(553)	- - - V Y E P P L F F L P Q D Q H H M H G L M P N		

FIG. 22D

		110	120
G3728_Z_mays(148)	A A G	- - - - -	- - - - -
G3804_Z_mays(210)	A G G	- - - - -	- - - - -
G3802_S_bicolor(206)	A V D	- - - - -	- - - - -
G3727_Z_mays(146)	A V V	- - - - -	- - - - -
G3721_O_sativa(134)	A A I	- - - - -	- - - - -
G3730_O_sativa(152)	G G G	- - - - -	- - - - -
G3719_Z_mays(130)	A V G	- - - - -	- - - - -
G3725_O_sativa(142)	T F G A A F	- - - - -	- - - - -
G3722_Z_mays(136)	A F G A V	- - - - -	- - - - -
G3733_H_vulgaris(158)	A I S P D	- - - - -	- - - - -
G3726_O_sativa(144)	P D P S	- - - - -	- - - - -
G3720_Z_mays(132)	- - - - -	- - - - -	- - - - -
G3729_O_sativa(150)	E Y Y	- - - - -	- - - - -
G3797_L_sativa(204)	I T E	- - - - -	- - - - -
G3795_C_anuum(202)	P I Q	- - - - -	- - - - -
G1275_A_thaliana(30)	S Y G Y	- - - - -	- - - - -
G1274_A_thaliana(6)	G G N	- - - - -	- - - - -
G1758_A_thaliana(32)	G R E	- - - - -	- - - - -
G3732_S_tuberosum(156)	G S N	- - - - -	- - - - -
G3731_L_esculentum(154)	G S S	- - - - -	- - - - -
G3724_G_max(140)	Y V D	- - - - -	- - - - -
G3723_G_max(138)	A L V V D	- - - - -	- - - - -
G3803_G_max(208)	A V D	- - - - -	- - - - -
G194_A_thaliana(527)	T S Q P Q T Q T Q P S A K L S S S I I Q A P P S E		
G2517_A_thaliana(529)	- - - - -	- - - - -	- - - - -
G179_A_thaliana(531)	H - - - - -	- - - - -	- - - - -
G2688_A_thaliana(533)	H Q - - - - -	- - - - -	- - - - -
G1956_A_thaliana(535)	T L I S S L S	- - - - -	- - - - - S
G181_A_thaliana(537)	P P - - - - -	- - - - -	- - - - -
G1931_A_thaliana(539)	A P - - - - -	- - - - -	- - - - -
G1012_A_thaliana(541)			
G1420_A_thaliana(543)	N S F L D L L R Q D H Q F A S S S N S S S F S F D		
G2290_A_thaliana(545)	H - - - - -	- - - - -	- - - - - S L R F D
G2575_A_thaliana(547)	N N - - - - -	- - - - -	- - - - -
G195_A_thaliana(549)	E N G L - - - - -	- - - - -	- - - - -
G187_A_thaliana(551)	E - - - - -	- - - - -	- - - - -
G1013_A_thaliana(553)	E D - - - - -	- - - - -	- - - - -

FIG. 22E

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	130	140	150
G3728_Z_mays(148)	- - - - -	D S T A F S S E	L D D L
G3804_Z_mays(210)	- - - - -	D S T A F S S E	L D N L
G3802_S_bicolor (206)	- - - - -	S A T A F S A E	L D D L
G3727_Z_mays(146)	- - - - -	D S T D F S A E	L D D L
G3721_O_sativa(134)	- - - - -	D A N L F S G E	L D F D
G3730_O_sativa(152)	- - - - -	G G C S F G E F	L E L G
G3719_Z_mays(130)	- - - - -	N G M S L L S Y	G V D G
G3725_O_sativa(142)	- - - - -	R Q Q H L D L L D Y	L S D D
G3722_Z_mays(136)	- - - - -	A Q L D V F D C	L S S D
G3733_H_vulgare(158)	- - - - -	P A S Q F D I S E Y	L Y G D
G3726_O_sativa(144)	- - - - -	G S Q F D I S E F	F F D D
G3720_Z_mays(132)	- - - - -	E H F D I S E F	L F D D
G3729_O_sativa(150)	- - - - -	T P E V G F H S K Q	H N P
G3797_L_sativa(204)	- - - - -	D K A S T V P E Y Q	D H
G3795_C_anuum(202)	- - - - -	Q D P T L I P Q Y S	N Y
G1275_A_thaliana(30)	- - - - -	Q T S D V A G A	L F S G
G1274_A_thaliana(6)	- - - - -	N G L I E E E	I S S P
G1758_A_thaliana(32)	- - - - -	D H S S S P T	L S W S
G3732_S_tuberosum(156)	- - - - -	- - - - -	D D F L S Q
G3731_L_esculentum(154)	- - - - -	- - - - -	D D F L S Q
G3724_G_max(140)	- - - - -	H Q - D S R S S Q	S T E
G3723_G_max(138)	- - - - -	H H Q E S W S Q	S T E T E
G3803_G_max(208)	- - - - -	N Q E S W S Q	S T E T E
G194_A_thaliana(527)	Q L V T S K V E S L C S	D H L L I N P P A T	P N S
G2517_A_thaliana(529)	- - - - -	- - - - -	L M H F P T T P N S
G179_A_thaliana(531)	- - - - -	- - - - -	G V D N S
G2688_A_thaliana(533)	- - - - -	- - - - -	G E E E S
G1956_A_thaliana(535)	S K Q R D D H D G F L N L	D H H R L T G S	I S S Q
G181_A_thaliana(537)	- - - - -	- - - - -	S T - F S
G1931_A_thaliana(539)	- - - - -	- - - - -	S L I F S
G1012_A_thaliana(541)	- - - - -	- - - - -	M N
G1420_A_thaliana(543)	A F P L P N N N N N T S	F F T D L P L P Q	A E S S
G2290_A_thaliana(545)	S D L T Q T T G V K P T	T T V T S S C S S S	A A V S
G2575_A_thaliana(547)	- - - - -	P Y L - - N L T S N S	P V V S S S S N E
G195_A_thaliana(549)	- Y N A Y N Y N S S Q	K S H E V V G D G C	A T I K
G187_A_thaliana(551)	- - - - -	P N - - - R D V T N D V	I N G G A C N E
G1013_A_thaliana(553)	- - - - -	- - - - -	F I A N K F V T S T L Y S G

FIG. 22F

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	160	170
G3728_Z_mays(148)	H H F D Y S P A P I V T A A - - - - -	- - - - -
G3804_Z_mays(210)	H H F D Y S P A P I V T A A - - - - -	- - - - -
G3802_S_bicolor(206)	H H F D Y S P A P I F T A V - - - - -	- - - - -
G3727_Z_mays(146)	H H H L D Y S S P A P T L A - - - - -	- - - - -
G3721_O_sativa(134)	C S L P A P A Q E Y P E N E - - - - -	- - - - -
G3730_O_sativa(152)	H S V Y S L P L P P P S Q - - - - -	- - - - -
G3719_Z_mays(130)	D G D G R R P M S G P P - - - - -	- - - - -
G3725_O_sativa(142)	Q G V P A P P P A A V P S A S Y V T P A P A M A P	- - - - -
G3722_Z_mays(136)	E - - G V G V P A A V P G A - - F A P P P L M P	- - - - -
G3733_H_vulgare(158)	G P L A A P L A P V G A A V - - - - -	- - - - -
G3726_O_sativa(144)	A P P A A V F N G A P T A A - - - - -	- - - - -
G3720_Z_mays(132)	A A G A G V A G A P G V F A D - - - - -	- - - - - G A A
G3729_O_sativa(150)	P P V A A A P L E A G G G R - - - - -	- - - - -
G3797_L_sativa(204)	T P V Y P S A T I E D G G L - - - - -	- - - - -
G3795_C_anuum(202)	A A N Q V V N T S S Y Q - - - - -	- - - - -
G1275_A_thaliana(30)	S S S C F S H P E S P S - - - - -	- - - - -
G1274_A_thaliana(6)	T S I V S S E T F T G E S G - - - - -	- - - - -
G1758_A_thaliana(32)	S S E K L V A A E I T S P L - - - - -	- - - - -
G3732_S_tuberosum(156)	N E I V Q S V S D S S G S Y - - - - -	- - - - -
G3731_L_esculentum(154)	N E I V Q S V S D T S G S Y - - - - -	- - - - -
G3724_G_max(140)	S S E K A T F N D A T H G F - - - - -	- - - - -
G3723_G_max(138)	S S E K A T S S D A S H G F - - - - -	- - - - -
G3803_G_max(208)	S S E K G N S S D V S H G F - - - - -	- - - - -
G194_A_thaliana(527)	S S I S S A S S E A L N E E K - - - - -	- - - - -
G2517_A_thaliana(529)	S - - - - S S E A V N G - - - - -	- - - - -
G179_A_thaliana(531)	A Q P T T S S E E - - - - -	- - - - -
G2688_A_thaliana(533)	S K V R S E G C S - - - - -	- - - - -
G1956_A_thaliana(535)	R P L S N P W A W S C Q A G Y G S S Q K N N H G S	- - - - -
G181_A_thaliana(537)	G E V E P S S S S S W Y P E S - - - - -	- - - - -
G1931_A_thaliana(539)	G D V G P S S S S - C T P A G - - - - -	- - - - -
G1012_A_thaliana(541)	G L V D - - - S S - - - - -	- - - - -
G1420_A_thaliana(543)	E V V N T T P T S P N S T S V - - - - -	- - - - -
G2290_A_thaliana(545)	V A V T S T N N N P - - S A T - - - - -	- - - - -
G2575_A_thaliana(547)	G E P K E N T N D K S D Q M E - - - - -	- - - - -
G195_A_thaliana(549)	S E V R V S A S P S S S E A D - - - - -	- - - - -
G187_A_thaliana(551)	T E T R V S P S N S S S S E A - - - - -	- - - - -
G1013_A_thaliana(553)	P R I Q D I A N A L A L V E - - - - -	- - - - -

FIG. 22G

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	180					190					200				
G3728_Z_mays(148)	-	-	-	-	-	G	A	G	A	G	G	D	R	N	E - K M M W C - -
G3804_Z_mays(210)	-	-	-	-	-	G	A	G	A	G	G	D	R	N	E - K M M W C - -
G3802_S_bicolor(206)	-	-	-	-	-	G	A	G	A	G	G	-	D	R	N E K M M M W C - -
G3727_Z_mays(146)	-	-	-	-	-	G	A	R	S	D	R	-	-	S	E K Q M I R W C - -
G3721_O_sativa(134)	-	-	-	-	-	N	T	M	M	R	Y	E	S	E	E K - - - - - - -
G3730_O_sativa(152)	-	-	-	-	-	P	V	V	V	A	G	G	N	N	D Q - - - - - - -
G3719_Z_mays(130)	-	-	-	-	-	-	Y	G	T	G	G	N	G	G	- - - - - - -
G3725_O_sativa(142)	A	E	P	V	V	P	D	A	V	A	A	A	G	G	Y P R S V A A A A - -
G3722_Z_mays(136)	A	E	R	V	V	P	D	A	A	A	G	Y	S	S	H T R S - - - - A - -
G3733_H_vulgare(158)	-	-	-	-	-	-	-	-	-	-	-	-	A	S	S A T A V P A R S - -
G3726_O_sativa(144)	-	-	-	-	-	L	P	D	G	A	A	A	N	A	T R S A A E A V - -
G3720_Z_mays(132)	R	P	V	V	L	P	V	P	D	A	A	G	G	G	A I I G A A A G G - -
G3729_O_sativa(150)	-	-	-	-	-	E	Q	S	R	R	E	A	A	V	N L G K M D R G P -
G3797_L_sativa(204)	-	-	-	-	-	S	I	G	S	S	S	S	N	S	H L H D G S R S - -
G3795_C_anuum(202)	-	-	-	-	-	-	-	-	E	E	P	S	N	N	I G S S S S S K - - -
G1275_A_thaliana(30)	-	-	-	-	-	-	-	T	K	T	Y	V	A	A	T A T A S A D N - -
G1274_A_thaliana(6)	-	-	-	-	-	-	G	S	G	S	A	T	T	L	S K K E S T N - - -
G1758_A_thaliana(32)	-	-	-	-	-	Q	T	S	L	A	T	S	P	M	S F E I G D K D - -
G3732_S_tuberosum(156)	-	-	-	-	-	-	S	N	N	P	T	P	T	S	H N I K C M - - - -
G3731_L_esculentum(154)	-	-	-	-	-	-	S	N	N	P	T	P	T	S	H N I K C M - - - -
G3724_G_max(140)	-	-	-	-	-	-	S	T	G	A	T	S	K	N	N N I N C K - - - -
G3723_G_max(138)	-	-	-	-	-	-	G	D	A	T	S	T	N	T	N M H I K C Q N - -
G3803_G_max(208)	-	-	-	-	-	-	G	D	A	T	F	S	N	T	N M H I K C E N - -
G194_A_thaliana(527)	-	-	-	-	-	P	K	T	E	D	N	E	E	E	G G E D Q Q E K S - -
G2517_A_thaliana(529)	-	-	-	-	-	-	D	D	E	E	E	E	D	G	E E Q Q H K T - -
G179_A_thaliana(531)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- - - - - - -
G2688_A_thaliana(533)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- - - - - - -
G1956_A_thaliana(535)	E	I	D	V	D	D	N	D	D	E	V	G	D	G	G G I N D D D N G R H
G181_A_thaliana(537)	-	-	-	-	-	F	H	V	H	A	P	P	L	P	P E - - - - - - -
G1931_A_thaliana(539)	-	-	-	-	-	Y	H	L	S	A	Q	L	E	N	F R G G G G E M G G L
G1012_A_thaliana(541)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- - - - - - -
G1420_A_thaliana(543)	-	-	-	-	-	S	S	S	S	N	E	A	A	N	D N N S G K E V T V K
G2290_A_thaliana(545)	-	-	-	-	-	S	S	S	S	E	D	P	A	E	N S T A S A E K T P P
G2575_A_thaliana(547)	-	-	-	-	-	D	N	E	G	D	L	H	G	V	G E S S K Q L T K - -
G195_A_thaliana(549)	-	-	-	-	-	H	H	P	G	E	D	S	G	K	I R K K R E V R D G G
G187_A_thaliana(551)	-	-	-	-	-	D	H	P	G	E	D	S	G	K	S R R K R E L V G - -
G1013_A_thaliana(553)	-	-	-	-	-	-	P	L	T	H	P	V	R	E	I S K S T V P - -

FIG. 22H

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	210															220												
G3728_Z_mays (148)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	E	G	G	G	D	E	R	R					
G3804_Z_mays (210)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Q	G	G	G	D	E	R	R					
G3802_S_bicolor (206)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	E	G	G	G	D	E	K	R					
G3727_Z_mays (146)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	E	G	G	G	G	E	K	R					
G3721_O_sativa (134)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	R				
G3730_O_sativa (152)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	G	V	S	S	S	S	S					
G3719_Z_mays (130)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	G	R	P	P	S	S	-					
G3725_O_sativa (142)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	V	A	G	E	G	R					
G3722_Z_mays (136)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	V	A	G	E	G	S					
G3733_H_vulgare (158)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	E	S	A	A	A	V					
G3726_O_sativa (144)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	A	P	A	P	A	A	V					
G3720_Z_mays (132)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	A	S	E	V	P					
G3729_O_sativa (150)	-	-	-	-	-	-	-	-	-	-	-	-	-	A	P	V	S	G	G	A	A	T	G	G	V			
G3797_L_sativa (204)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	A	T	G	F	G	Q	A					
G3795_C_anuum (202)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R					
G1275_A_thaliana (30)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Q	N	K	K	E	-	-	-					
G1274_A_thaliana (6)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	G	S	K	E	S	D	Q					
G1758_A_thaliana (32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	E	I	K	K	R	K	R					
G3732_S_tuberosum (156)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	K	G	V	K	-	-	-	-					
G3731_L_esculentum (154)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	K	G	I	K	-	-	-	-					
G3724_G_max (140)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	G	I	N	E	-	-	N					
G3723_G_max (138)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	G	I	K	G	-	-	K					
G3803_G_max (208)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	G	I	K	R	-	-	K					
G194_A_thaliana (527)	-	-	-	-	-	-	-	-	-	-	-	-	H	T	K	K	Q	L	K	A	K	K	N	N	Q			
G2517_A_thaliana (529)	-	-	-	-	-	-	-	-	-	-	-	-	K	K	R	F	K	F	T	K	M	S	R	K	Q			
G179_A_thaliana (531)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	K	P	R	S	K	K	K	K	E				
G2688_A_thaliana (533)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	K	S	V	E	S	S	K	K	G				
G1956_A_thaliana (535)	H	H	H	D	T	P	S	R	H	D	K	H	N	T	A	S	L	G	V	V	S	S	L	K	M			
G181_A_thaliana (537)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	D	Q	I	G	E	K	G	K	E	L			
G1931_A_thaliana (539)	V	S	N	-	-	-	-	-	-	-	-	-	-	-	N	S	N	N	S	D	H	N	K	N	C			
G1012_A_thaliana (541)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	D	K	K	M		
G1420_A_thaliana (543)	D	Q	E	E	G	D	Q	Q	Q	E	Q	K	G	T	K	P	Q	L	K	A	K	K	K	N	Q			
G2290_A_thaliana (545)	P	E	-	-	-	-	-	-	-	-	-	-	-	-	T	P	V	K	E	K	K	K	A	Q				
G2575_A_thaliana (547)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Q	G	K	K	K	G	E					
G195_A_thaliana (549)	E	D	D	Q	R	-	-	-	-	-	-	-	-	S	Q	K	V	V	K	T	K	K	K	E	E			
G187_A_thaliana (551)	E	E	D	Q	I	-	-	-	-	-	-	-	-	S	K	K	V	G	K	T	K	K	T	E	V			
G1013_A_thaliana (553)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	L	L	E	R	S	T	L			

FIG. 22I

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		230		240		250
G3728_Z_mays (148)	L	R	- - - - - S N G	R I G F R T R S	- - E -	V
G3804_Z_mays (210)	L	R	- - - - - S N G	R I G F R T R S	- - Q -	V
G3802_S_bicolor (206)	L	R	- - - - - S S G	R I G F R T R S	- - E -	V
G3727_Z_mays (146)	L	-	- - - - - - - G	R I G F R T R S	- - E -	V
G3721_O_sativa (134)	A	R	- - - - - V N G	R I G F R T R S	- - E -	V
G3730_O_sativa(152)	A A A	-	- - - - - T T S	R I G F R T R S	- - E -	V
G3719_Z_mays(130)	-	-	- - - - - - - S	R I G F R T R S	- - E -	V
G3725_O_sativa(142)	D	R	T - - - - T T D	K I A F R T R S	- - D -	D
G3722_Z_mays (136)	R	-	- - - - - T T H	R I A F R V R S	- - D E	D
G3733_H_vulgare(158)	E	R	P - - - - R T E	R I A F R T R T	- - E -	I
G3726_O_sativa (144)	E	R	P - - - - R T E	R I A F R T K S	- - E -	I
G3720_Z_mays(132)	E	R	P - - - - R T T	R I A F R T R S	- - E -	I
G3729_O_sativa(150)	P	R	S - - - - K N G S	K I A F K T R S	- - - E	V
G3797_L_sativa (204)	Q	N	G - - - - K K E	K V A F K T K S	Q - - -	V
G3795_C_anuum (202)	K	E	- - - - - V K D	K V A F R T L S	Q - - -	I
G1275_A_thaliana(30)	K	K	K - - - - I K G	R V A F K T R S	- - - E	V
G1274_A_thaliana(6)	T	K	E - - - - T G H	R V A F R T R S	- - - K	I
G1758_A_thaliana(32)	H	K	E - - - - D P I	I H V F K T K S	S I D E	K
G3732_S_tuberosum (156)	K	V	D - - - - A K S	R V A F R F R S	- - - E	L
G3731_L_esculentum(154)	K	V	D - - - - A K S	K V A F R F R S	- - - E	L
G3724_G_max (140)	K	G	G - - - - V G P	R I A F R T K S	- - - E	L
G3723_G_max (138)	N	A	E - - - - V S Q	R I T F R T R S	- - - Q	L
G3803_G_max (208)	K	E	E - - - - V S Q	M I T F R T R S	- - - Q	L
G194_A_thaliana(527)	K	R	Q - - - - R E A	R V A F M T K S	- - - E	V
G2517_A_thaliana(529)	T	K	K - - - - K V P	K V S F I T R S	- - - E	V
G179_A_thaliana(531)	R	E	- - - - - - - A	R Y A F Q T R S	- - - Q	V
G2688_A_thaliana(533)	K	K	- - - - - - - Q	R Y A F Q T R S	- - - Q	V
G1956_A_thaliana(535)	K	K	L K T R R K V R E P	R F C F K T L S	- - - E	V
G181_A_thaliana(537)	K	E	- - - K R S R K V P	R I A F H T R S	- - - D	D
G1931_A_thaliana (539)	N	K	G K G K R T L A M Q	R I A F H T R S	- - - D	D
G1012_A_thaliana(541)	K	N	- - - - - - - P	R F S F R T K S	- - - D	A
G1420_A_thaliana(543)	K	K	- - - - - A R E A	R F A F L T K S	- - - D	I
G2290_A_thaliana (545)	K	R	- - - - - I R Q P	R F A F M T K S	- - - D	V
G2575_A_thaliana(547)	K	K	E - - - - R E V	R V A F M T K S	- - - E	I
G195_A_thaliana (549)	K	K	- - - - - K E P	R V S F M T K T	- - - E	V
G187_A_thaliana (551)	K	K	Q - - - - R E P	R V S F M T K S	- - - E	V
G1013_A_thaliana(553)	S	K	- - - - - V D	R Y T L K V K N	- - N S	N
(662)	.	.		R . A F R T R S		.

FIG. 22J

	260	270
G3728_Z_mays(148)	E I L D D G F K W R K Y G K K	A V K N S P N P R N
G3804_Z_mays(210)	E I L D D G F K W R K Y G K K	A V K N S P N P R N
G3802_S_bicolor	E I L D D G F K W R K Y G K K	A V K N S P N P R N
G3727_Z_mays(146)	E I L D D G F K W R K Y G K K	A V K S S P N P R N
G3721_O_sativa(134)	E I L D D G F K W R K Y G K K	A V K N S P N P R N
G3730_O_sativa(152)	E V L D D G F K W R K Y G K K	A V K S S P N P R N
G3719_Z_mays(130)	D V L D D G F K W R K Y G K K	A V K S S P N P R N
G3725_O_sativa(142)	E I L D D G Y K W R K Y G K K	S V K N S P N P R N
G3722_Z_mays(136)	E V L D D G Y K W R K Y G K K	S V K N S P N P R N
G3733_H_vulgare(158)	E I L D D G Y K W R K Y G K K	S V K N S P N P R N
G3726_O_sativa(144)	E I L D D G Y K W R K Y G K K	S V K N S P N P R N
G3720_Z_mays(132)	E I L D D G Y K W R K Y G K K	S V K N S P N P R N
G3729_O_sativa(150)	D V L D D G Y R W R K Y G K K	M V K N S P N P R N
G3797_L_sativa(204)	E I L D D G F K W R K Y G K K	M V K N S P N P R N
G3795_C_anuum(202)	E I L D D G Y K W R K Y G K K	M V K N S P N P R N
G1275_A_thaliana(30)	E V L D D G F K W R K Y G K K	M V K N S P H P R N
G1274_A_thaliana(6)	D V M D D G F K W R K Y G K K	S V K N N I N K R N
G1758_A_thaliana(32)	V A L D D G Y K W R K Y G K K	P I T G S P F P R H
G3732_S_tuberosum(156)	E V L D D G F K W R K Y G K K	M V K N S S N P R N
G3731_L_esculentum(154)	E V L D D G F K W R K Y G K K	M V K N N P N P R N
G3724_G_max(140)	E I M D D G Y K W R K Y G K K	S V K S S P N L R N
G3723_G_max(138)	E V M D D G Y K W R K Y G K K	T V K S S P N P R N
G3803_G_max(208)	E V M D D G Y K W R K Y G K K	T V K N N P N P R N
G194_A_thaliana(527)	D H L E D G Y R W R K Y G Q	K A V K N S P F P R S
G2517_A_thaliana(529)	L H L D D G Y K W R K Y G Q	K P V K D S P F P R N
G179_A_thaliana(531)	D I L D D G Y R W R K Y G Q	K A V K N P F P R S
G2688_A_thaliana(533)	D I L D D G Y R W R K Y G Q	K A V K N N K F P R S
G1956_A_thaliana(535)	D V L D D G Y R W R K Y G Q	K V V K N T Q H P R S
G181_A_thaliana(537)	D V L D D G Y R W R K Y G Q	K S V K H N A H P R S
G1931_A_thaliana(539)	D V L D D G Y R W R K Y G Q	K S V K N N A H P R S
G1012_A_thaliana(541)	D I L D D G Y R W R K Y G Q	K S V K N S L Y P R S
G1420_A_thaliana(543)	D N L D D G Y R W R K Y G Q	K A V K N S P Y P R S
G2290_A_thaliana(545)	D N L E D G Y R W R K Y G Q	K A V K N S P F P R S
G2575_A_thaliana(547)	D H L E D G Y R W R K Y G Q	K A V K N S P Y P R S
G195_A_thaliana(549)	D H L E D G Y R W R K Y G Q	K A V K N S P Y P R S
G187_A_thaliana(551)	D H L E D G Y R W R K Y G Q	K A V K N S P Y P R S
G1013_A_thaliana(553)	G M C D D G Y K W R K Y G Q	K S I K N S P N P R S
(663) (664)	E . L D D G Y K W R K Y G K K	V K N S P N P R N

FIG. 22K

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	280	290	300
G3728_Z_mays(148)	Y Y R C S S E G C G	V K K R V E R D R	D D P R Y V
G3804_Z_mays(210)	Y Y R C S S E G C G	V K K R V E R D R	D D P R Y V
G3802_S_bicolor	Y Y R C S S E G C G	V K K R V E R D R	D D P R Y V
G3727_Z_mays(146)	Y Y R C S S E G C G	V K K R V E R D R	D D P R Y V
G3721_O_sativa(134)	Y Y R C S T E G C N	V K K R V E R D R	E D H R Y V
G3730_O_sativa(152)	Y Y R C S A A G C G	V K K R V E R D R	G D D P R Y V
G3719_Z_mays(130)	Y Y R C S T E G S G	V K K R V E R D S	D D P R Y V
G3725_O_sativa(142)	Y Y R C S T E G C N	V K K R V E R D K	N D P R Y V
G3722_Z_mays(136)	Y Y R C S T E G C N	V K K R V E R D R	D D P R Y V
G3733_H_vulgare(158)	Y Y R C S T E G C S	V K K R V E R D R	D D P A Y V
G3726_O_sativa(144)	Y Y R C S T E G C N	V K K R V E R D K	D D P S Y V
G3720_Z_mays(132)	Y Y R C S T E G C N	V K K R V E R D K	D D P S Y V
G3729_O_sativa(150)	Y Y R C S S E G C R	V K K R V E R A R	D D A R F V
G3797_L_sativa(204)	Y Y R C S A A G C S	V K K R V E R D V	E D A R Y V
G3795_C_anuum(202)	Y Y R C S V E G C P	V K K R V E R D K	E D S R Y V
G1275_A_thaliana(30)	Y Y K C S V D G C P	V K K R V E R D R	D D P S F V
G1274_A_thaliana(6)	Y Y K C S S E G C S	V K K R V E R D G	D D A A Y V
G1758_A_thaliana(32)	Y H K C S S P D C N	V K K K I E R D T	N N P D Y I
G3732_S_tuberosum(156)	Y Y K C S S G G C N	V K K R V E R D N	E D S S Y V
G3731_L_esculentum(154)	Y Y K C S S G G C N	V K K R V E R D N	K D S S Y V
G3724_G_max(140)	Y Y K C S S G G C S	V K K R V E R D R	D D Y S Y V
G3723_G_max(138)	Y Y K C S G E G C D	V K K R V E R D R	D D S N Y V
G3803_G_max(208)	Y Y K C S G E G C N	V K K R V E R D R	D D S N Y V
G194_A_thaliana(527)	Y Y R C T T A S C N	V K K R V E R S F	R D P S T V
G2517_A_thaliana(529)	Y Y R C T T T W C D	V K K R V E R S F	S D P S S V
G179_A_thaliana(531)	Y Y K C T E E G C R	V K K Q V Q R Q	W G D E G V V
G2688_A_thaliana(533)	Y Y R C T Y G G C N	V K K Q V Q R L	T V D Q E V V
G1956_A_thaliana(535)	Y Y R C T Q D K C R	V K K R V E R L A	D D P R M V
G181_A_thaliana(537)	Y Y R C T Y H T C N	V K K Q V Q R L	A K D P N V V
G1931_A_thaliana(539)	Y Y R C T Y H T C N	V K K Q V Q R L	A K D P N V V
G1012_A_thaliana(541)	Y Y R C T Q H M C N	V K K Q V Q R L	S K E T S I V
G1420_A_thaliana(543)	Y Y R C T T V G C G	V K K R V E R S S	D D P S I V
G2290_A_thaliana(545)	Y Y R C T N S R C T	V K K R V E R S S	D D P S I V
G2575_A_thaliana(547)	Y Y R C T T Q K C N	V K K R V E R S F	Q D P S I V
G195_A_thaliana(549)	Y Y R C T T Q K C N	V K K R V E R S Y	Q D P T V V
G187_A_thaliana(551)	Y Y R C T T Q K C N	V K K R V E R S F	Q D P T V V
G1013_A_thaliana(553)	Y Y K C T N P I C N	A K K Q V E R S I	D E S N T Y
(664) (665) (666)	Y Y R C S . . G C	V K K R V E R D	D D P Y V

FIG. 22L

	310										320														
G3728_Z_mays(148)	I	T	T	Y	D	G	V	H	N	H	A	S	P	G	A	A	I	I	V	P	Y	G	S	G	
G3804_Z_mays(210)	I	T	T	Y	D	G	V	H	N	H	A	S	P	A	A	A	I	I	V	P	Y	G	N	G	
G3802_S_bicolor	I	T	T	Y	D	G	V	H	N	H	A	S	P	G	A	A	A	I	I	Q	Y	G	G	-	G
G3727_Z_mays(146)	I	T	T	Y	D	G	V	H	N	H	A	S	P	A	A	A	A	I	I	Q	Y	G	G	-	-
G3721_O_sativa(134)	I	T	T	Y	D	G	V	H	N	H	A	S	P	A	A	A	A	A	L	Q	Y	A	A	A	A
G3730_O_sativa(152)	V	T	T	Y	D	G	V	H	N	H	A	T	P	G	C	V	G	G	G	G	H	L	P	Y	P
G3719_Z_mays(130)	V	T	T	Y	D	G	V	H	N	H	A	A	P	G	-	P	G	A	A	S	Y	L	C	Q	P
G3725_O_sativa(142)	V	T	M	Y	E	G	I	H	N	H	V	C	P	G	T	V	Y	Y	A	A	Q	D	A	-	-
G3722_Z_mays(136)	V	T	M	Y	E	G	V	H	N	H	V	S	P	G	T	V	Y	Y	A	T	H	D	A	-	-
G3733_H_vulgar(158)	V	T	T	Y	E	G	T	H	S	H	A	S	P	S	T	V	Y	Y	A	S	Q	D	A	-	-
G3726_O_sativa(144)	V	T	T	Y	E	G	T	H	N	H	V	S	P	S	T	V	Y	Y	A	S	Q	D	A	-	-
G3720_Z_mays(132)	V	T	T	Y	E	G	M	H	N	H	V	S	P	S	T	V	Y	Y	A	S	Q	D	A	-	-
G3729_O_sativa(150)	V	T	T	Y	D	G	V	H	N	H	P	A	P	L	H	L	R	P	Q	L	P	P	P	G	G
G3797_L_sativa(204)	I	T	T	Y	E	G	I	H	N	H	Q	R	P	S	N	Y									
G3795_C_anuum(202)	I	T	T	Y	E	G	V	H	N	H	Q	G	L	S	P	F									
G1275_A_thaliana(30)	I	T	T	Y	E	G	S	H	N	H	S	S	M	N											
G1274_A_thaliana(6)	I	T	T	Y	E	G	V	H	N	H	E	S	L	S	N	V	Y	Y	N	E	M	V	L	S	Y
G1758_A_thaliana(32)	L	T	T	Y	E	G	R	H	N	H	P	S	P	S	V	V	Y	C	D	S	D	D	F	D	L
G3732_S_tuberosum(156)	I	T	T	Y	E	G	I	H	N	H	E	S	P	Y	V	F	H	Y	T	Q	F	P	P	N	N
G3731_L_esculentum(154)	I	T	T	Y	E	G	I	H	N	H	E	S	P	H	V	L	H	Y	T	Q	F	P	P	N	N
G3724_G_max(140)	I	T	T	Y	E	G	V	H	N	H	E	S	P	F	T	T	Y	Y	S	P	I	S	F	V	H
G3723_G_max(138)	L	T	T	Y	D	G	V	H	N	H	Q	T	P	S	T	A	Y	Y	S	Q	M	P	L	L	H
G3803_G_max(208)	L	T	T	Y	D	G	V	H	N	H	E	S	P	S	T	A	Y	Y	S	Q	I	P	L	V	H
G194_A_thaliana(527)	V	T	T	Y	E	G	Q	H	T	H	I	S	P	L	T	S	R	P	I	S	T	G	G	F	F
G2517_A_thaliana(529)	I	T	T	Y	E	G	Q	H	T	H	P	R	P	L	L	I	M	P	-	-	K	E	G	S	S
G179_A_thaliana(531)	V	T	T	Y	Q	G	V	H	T	H	A	V	D	K	P	S	D	N	F	H	H	I	L	T	Q
G2688_A_thaliana(533)	V	T	T	Y	E	G	V	H	S	H	P	I	E	K	S	T	E	N	F	E	H	I	L	T	Q
G1956_A_thaliana(535)	I	T	T	Y	E	G	R	H	L	H	S	P	S	N	H	L	D	D	D	S	L	S	T	-	-
G181_A_thaliana(537)	V	T	T	Y	E	G	V	H	N	H	P	C	E	K	L	M	E	T	L	N	P	L	L	R	Q
G1931_A_thaliana(539)	V	T	T	Y	E	G	V	H	N	H	P	C	E	K	L	M	E	T	L	S	P	L	L	R	Q
G1012_A_thaliana(541)	E	T	T	Y	E	G	I	H	N	H	P	C	E	E	L	M	Q	T	L	T	P	L	L	H	Q
G1420_A_thaliana(543)	M	T	T	Y	E	G	Q	H	T	H	P	F	P	M	T	P	R	G	H	I	G	M	L	T	S
G2290_A_thaliana(545)	I	T	T	Y	E	G	Q	H	C	H	Q	T	I	G	F	P	R	G	G	I	L	T	A	H	D
G2575_A_thaliana(547)	I	T	T	Y	E	G	K	H	N	H	P	I	P	S	T	L	R	G	T	V	A	A	E	H	L
G195_A_thaliana(549)	I	T	T	Y	E	S	Q	H	N	H	P	I	P	T	N	R	R	T	A	M	F	S	G	T	T
G187_A_thaliana(551)	I	T	T	Y	E	G	Q	H	N	H	P	I	P	T	N	L	R	G	S	S	A	A	A	A	M
G1013_A_thaliana(553)	I	I	T	Y	E	G	F	H	F	H	Y	T	Y	P	F	F	L	P	D	K	T	R	Q	W	P
(666)	I	T	T	Y	E	G	.	H	N	H	.	P

FIG. 22M

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	330										340										350											
G3728_Z_mays (148)	-	-	-	-	-	-	-	-	-	-	G	G	N	S	G	F	Y	S	P	P	H	S	G	S	P	S	-	-				
G3804_Z_mays (210)	-	-	-	-	-	-	-	-	-	-	G	G	N	S	G	F	Y	S	P	P	H	S	G	S	P	S	-	-				
G3802_S_bicolor	-	-	-	-	-	-	-	-	-	-	G	G	N	S	G	F	Y	S	P	P	H	S	G	S	P	S	-	-				
G3727_Z_mays (146)	-	-	-	-	-	-	-	-	-	-	G	G	-	G	F	Y	S	P	P	H	S	G	S	P	S	-	-					
G3721_O_sativa (134)	-	-	-	-	-	-	-	-	-	-	A	G	D	Y	Y	S	P	P	L	S	S	A	G	S	P	P	-	-				
G3730_O_sativa (152)	-	-	-	-	-	-	-	-	-	T	S	A	A	P	P	W	S	V	P	A	A	A	A	S	P	P	P					
G3719_Z_mays (130)	P	P	P	R	G	A	T	A	T	A	T	P	F	S	P	P	R	S	A	S	A	P	A	P	L							
G3725_O_sativa (142)	-	-	-	-	-	-	-	-	-	-	A	S	G	R	F	F	V	A	G	I	S	H	P	D	-	-						
G3722_Z_mays (136)	-	-	-	-	-	-	-	-	-	-	A	S	G	R	F	F	V	A	G	M	H	Q	P	G	-	-						
G3733_H_vulgare (158)	-	-	-	-	-	-	-	-	-	-	A	S	G	R	F	F	V	A	G	T	H	P	P	P	-	-						
G3726_O_sativa (144)	-	-	-	-	-	-	-	-	-	-	A	S	G	R	F	F	V	A	G	T	Q	P	P	-	-	-						
G3720_Z_mays (132)	-	-	-	-	-	-	-	-	-	-	A	S	G	R	F	F	V	A	G	T	Q	P	P	-	-	-						
G3729_O_sativa (150)	-	-	-	-	-	-	-	-	-	Y	S	I	A	G	A	P	A	V	V	A	P	H	G	R	L	-	-					
G3797_L_sativa (204)																																
G3795_C_anuum (202)																																
G1275_A_thaliana (30)																																
G1274_A_thaliana (6)	-	-	-	-	-	-	-	-	-	-	D	H	D	N	W	N	Q	H	S	L	L	R	S									
G1758_A_thaliana (32)	N	S	L	N	N	W	S	F	Q	T	A	N	T	Y	S	F	S	H	S	A	P	Y										
G3732_S_tuberosum (156)	-	-	-	-	-	-	-	-	-	-	I	A	L	H	N	L	C	L														
G3731_L_esculentum (154)	-	-	-	-	-	-	-	-	-	-	I	A	L	H	N	L	H	L														
G3724_G_max (140)	-	-	-	-	-	-	-	-	-	-	S	D	T	T	F	K																
G3723_G_max (138)	-	-	-	-	-	-	-	-	-	-	S	N	H	D	W	A	-	L	H	P	S	A	N	S								
G3803_G_max (208)	-	-	-	-	-	-	-	-	-	-	S	N	H	D	W	P	Q	L	H	P	S	A	N	S								
G194_A_thaliana (527)	G	S	-	-	-	-	-	-	-	-	S	G	A	A	S	S	L	G	N	G	C	F	G	F	P	I	D					
G2517_A_thaliana (529)	P	S	-	-	-	-	-	-	-	-	N	G	S	A	S	R	A	H	I	G	L	P	T	L	P	-	-					
G179_A_thaliana (531)	M	H	-	-	-	-	-	-	-	-	I	F	P	P	F	C	L	K	E													
G2688_A_thaliana (533)	M	Q	-	-	-	-	-	-	-	-	I	Y	S	S	F																	
G1956_A_thaliana (535)	-	-	-	-	-	-	-	-	-	-	S	H	L	H	P	P	L	S	N	F	F	W										
G181_A_thaliana (537)	L	Q	-	-	-	-	-	-	-	-	F	L	S	S	F	S	N	L														
G1931_A_thaliana (539)	L	Q	-	-	-	-	-	-	-	-	F	L	S	R	V	S	D	L														
G1012_A_thaliana (541)	L	Q	-	-	-	-	-	-	-	-	F	L	S	K	F	T																
G1420_A_thaliana (543)	P	I	-	-	-	-	-	-	-	-	L	D	H	G	A	T	T	A	S	S	S	S	F	S	I	P	Q					
G2290_A_thaliana (545)	P	-	-	-	-	-	-	-	-	-	-	H	S	F	T	S	H	H	H	L	P	P	P	L	P	N						
G2575_A_thaliana (547)	L	V	-	-	-	-	-	-	-	-	H	R	G	-	G	G	G	S	L	L	H	S	F	P	R	H	H					
G195_A_thaliana (549)	A	S	-	-	-	-	-	-	-	-	D	Y	N	P	S	S	S	P	I	F	S	D	L	I	I	N	T					
G187_A_thaliana (551)	F	S	-	-	-	-	-	-	-	-	A	D	L	M	T	P	R	S	F	A	H	D	M	F	R	T	A					
G1013_A_thaliana (553)	N	K	K	T	K	I	H	K	H	N	A	Q	D	M	N	K	K	S	Q	T	Q	E	E	S	K							

FIG. 22N

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	360										370														
G3728_Z_mays (148)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3804_Z_mays (210)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3802_S_bicolor (206)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3727_Z_mays (146)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3721_O_sativa (134)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3730_O_sativa (152)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3719_Z_mays (130)	A	A	A	P	S	W	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3725_O_sativa (142)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3722_Z_mays (136)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3733_H_vulgare (158)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3726_O_sativa (144)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3720_Z_mays (132)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3729_O_sativa (150)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
G3797_L_sativa (204)																									
G3795_C_anuum (202)																									
G1275_A_thaliana (30)																									
G1274_A_thaliana (6)																									
G1758_A_thaliana (32)																									
G3732_S_tuberosum (156)																									
G3731_L_esculentum(154)																									
G3724_G_max(140)																									
G3723_G_max(138)																									
G3803_G_max(208)																									
G194_A_thaliana (527)	G	S	T	L	I	S	P	Q	F	Q	Q	L	V	Q	Y	H	H	Q	Q	Q	Q	E	L	M	
G2517_A_thaliana (529)	-	-	-	-	-	-	-	-	-	P	Q	L	L	D	Y	N	N	Q	Q	Q	Q	A	P	S	S
G179_A_thaliana (531)																									
G2688_A_thaliana (533)																									
G1956_A_thaliana (535)																									
G181_A_thaliana (537)																									
G1931_A_thaliana (539)																									
G1012_A_thaliana (541)																									
G1420_A_thaliana(543)	P	R	Y	L	L	T	-	-	-	-	Q	H	H	Q	P	Y	N	M	Y	N	N	N	S	L	S
G2290_A_thaliana (545)	P	Y	Y	Y	Q	E	-	-	-	-	L	L	H	Q	L	H	R	-	-	D	N	N	-	-	-
G2575_A_thaliana (547)	Q	D	F	L	M	M	-	-	-	-	K	H	S	P	A	N	Y	Q	S	V	G	S	-	-	-
G195_A_thaliana (549)	P	R	S	F	S	-	-	-	-	-	-	-	-	-	-	-	N	D	D	L	F	R	-	-	-
G187_A_thaliana (551)	A	Y	T	N	G	G	-	-	-	-	S	V	A	A	A	L	D	Y	G	Y	G	Q	-	-	-
G1013_A_thaliana (553)	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FIG. 22O

REPLACEMENT SHEET

G3728_Z_mays (148)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3804_Z_mays (210)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3802_S_bicolor (206)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3727_Z_mays (146)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3721_O_sativa (134)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3730_O_sativa (152)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3719_Z_mays (130)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3725_O_sativa (142)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3722_Z_mays (136)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3733_H_vulgare (158)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3726_O_sativa (144)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3720_Z_mays (132)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3729_O_sativa (150)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G3797_L_sativa (204)																									
G3795_C_anuum (202)																									
G1275_A_thaliana (30)																									
G1274_A_thaliana (6)																									
G1758_A_thaliana (32)																									
G3732_S_tuberosum (156)																									
G3731_L_esculentum (154)																									
G3724_G_max(140)																									
G3723_G_max(138)																									
G3803_G_max (208)																									
G194_A_thaliana (527)	S	C	F	G	G	V	N	E	Y	L	N	S	H	A	N	E	Y	G	D	D	N	R	V	K	K
G2517_A_thaliana (529)	F	G	T	E	Y	I	N	R	Q	E	K	G	I	N	H	D	D	D	D	D	H	V	V	K	K
G179_A_thaliana (531)																									
G2688_A_thaliana (533)																									
G1956_A_thaliana (535)																									
G181_A_thaliana (537)																									
G1931_A_thaliana (539)																									
G1012_A_thaliana (541)																									
G1420_A_thaliana (543)	M	I	N	R	R	S	S	D	G	T	F	V	N	P	G	P	S	S	S	F	P	G	F	G	Y
G2290_A_thaliana (545)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	P	S	P	R	L	P	R	P	T	T
G2575_A_thaliana (547)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	L	S	Y	E	H	G	H	G	T	S
G195_A_thaliana (549)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	V	P	Y	A	S	V	N	V	N	P
G187_A_thaliana (551)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	G	Y	G	S	V	N	S	N	P
G1013_A_thaliana (553)	-	-	A	Q	L	G	E	L	T	N	Q	N	H	P	V	N	K	A	Q	E	N	T	P	A	N

FIG. 22P

Appl. No. 10/714,887
Amdt. dated 11 June 2008
Reply to Office action of 11 December 2007
REPLACEMENT SHEET

	410	420
G3728_Z_mays (148)	- - - - - - - - - - A T S Y S G S L A F	
G3804_Z_mays (210)	- - - - - - - - - - A T S Y S G S L V F	
G3802_S_bicolor (206)	- - - - - - - - - - A A S Y S G S F V F	
G3727_Z_mays (146)	- - - - - - - - - - A A S Y S G S F V L	
G3721_O_sativa (134)	- - - - - - - - - - A A Y F G R R L R C S S E G	
G3730_O_sativa (152)	- - - - - - - - - A H A Q A W G A P L H A A A A -	
G3719_Z_mays (130)	- - - - - - - S A A C D A W W E A Q L H A A A A V	
G3725_O_sativa (142)	- - - - - - - - - - - - - - - L N	
G3722_Z_mays (136)	- - - - - - - - - - - - - - - H	
G3733_H_vulgare (158)	- - - - - - - - - - - - - - - G S L N	
G3726_O_sativa (144)	- - - - - - - - - - - - - - - G S L N	
G3720_Z_mays (132)	- - - - - - - - - - - - - - - G S L N	
G3729_O_sativa (150)	- - - - - - - - G L E E A E V I A L F R G T T A T	
G3797_L_sativa (204)		
G3795_C_anuum (202)		
G1275_A_thaliana (30)		
G1274_A_thaliana (6)		
G1758_A_thaliana (32)		
G3732_S_tuberosum (156)		
G3731_L_esculentum (154)		
G3724_G_max (140)		
G3723_G_max (138)		
G3803_G_max (208)		
G194_A_thaliana (527)	S R - - - - - - - - V L V K D N G L L Q D V V P S	
G2517_A_thaliana (529)	S R T R D L L D G A G L V K D H G L L Q D V V P S	
G179_A_thaliana (531)		
G2688_A_thaliana (533)		
G1956_A_thaliana (535)		
G181_A_thaliana (537)		
G1931_A_thaliana (539)		
G1012_A_thaliana (541)		
G1420_A_thaliana (543)	D M S Q A S T S T S S S I R D H G L L Q D I L P S	
G2290_A_thaliana (545)	E D T P A V S T P S - - - - E E G L L G D I V P Q	
G2575_A_thaliana (547)	S Y N F N N N Q P V - - - - V D Y G L L Q D I V P S	
G195_A_thaliana (549)	S Y H Q Q Q H G F H Q Q E S E F E L L K E M F P S	
G187_A_thaliana (551)	S S H Q V Y H Q G G - - - - E Y E L L R E I F P S	
G1013_A_thaliana (553)	L E E G L F F P V D Q C R P Q Q G L L E D V V A P	

FIG. 22Q

430

440

450

G3728_Z_mays (148)
G3804_Z_mays (210)
G3802_S_bicolor (206)
G3727_Z_mays (146)
G3721_O_sativa (134)
G3730_O_sativa (152) A H S S E S S F
G3719_Z_mays (130) A H S S E S S Y
G3725_O_sativa (142)
G3722_Z_mays (136)
G3733_H_vulgare (158)
G3726_O_sativa (144)
G3720_Z_mays (132)
G3729_O_sativa (150) S L L L P
G3797_L_sativa (204)
G3795_C_anuum (202)
G1275_A_thaliana (30)
G1274_A_thaliana (6)
G1758_A_thaliana (32)
G3732_S_tuberosum (156)
G3731_L_esculentum (154)
G3724_G_max (140)
G3723_G_max (138)
G3803_G_max (208)
G194_A_thaliana (527) H M L K E E
G2517_A_thaliana (529) H I I K E E Y
G179_A_thaliana (531)
G2688_A_thaliana (533)
G1956_A_thaliana (535)
G181_A_thaliana (537)
G1931_A_thaliana (539)
G1012_A_thaliana (541)
G1420_A_thaliana (543) Q I R S D T I N T Q T N E E N K K
G2290_A_thaliana (545) T M R N P
G2575_A_thaliana (547) M F S K N E S
G195_A_thaliana (549) V F F K Q E P
G187_A_thaliana (551) I F F K Q E P
G1013_A_thaliana (553) A M K N I P T R D S V L T A S

FIG. 22R

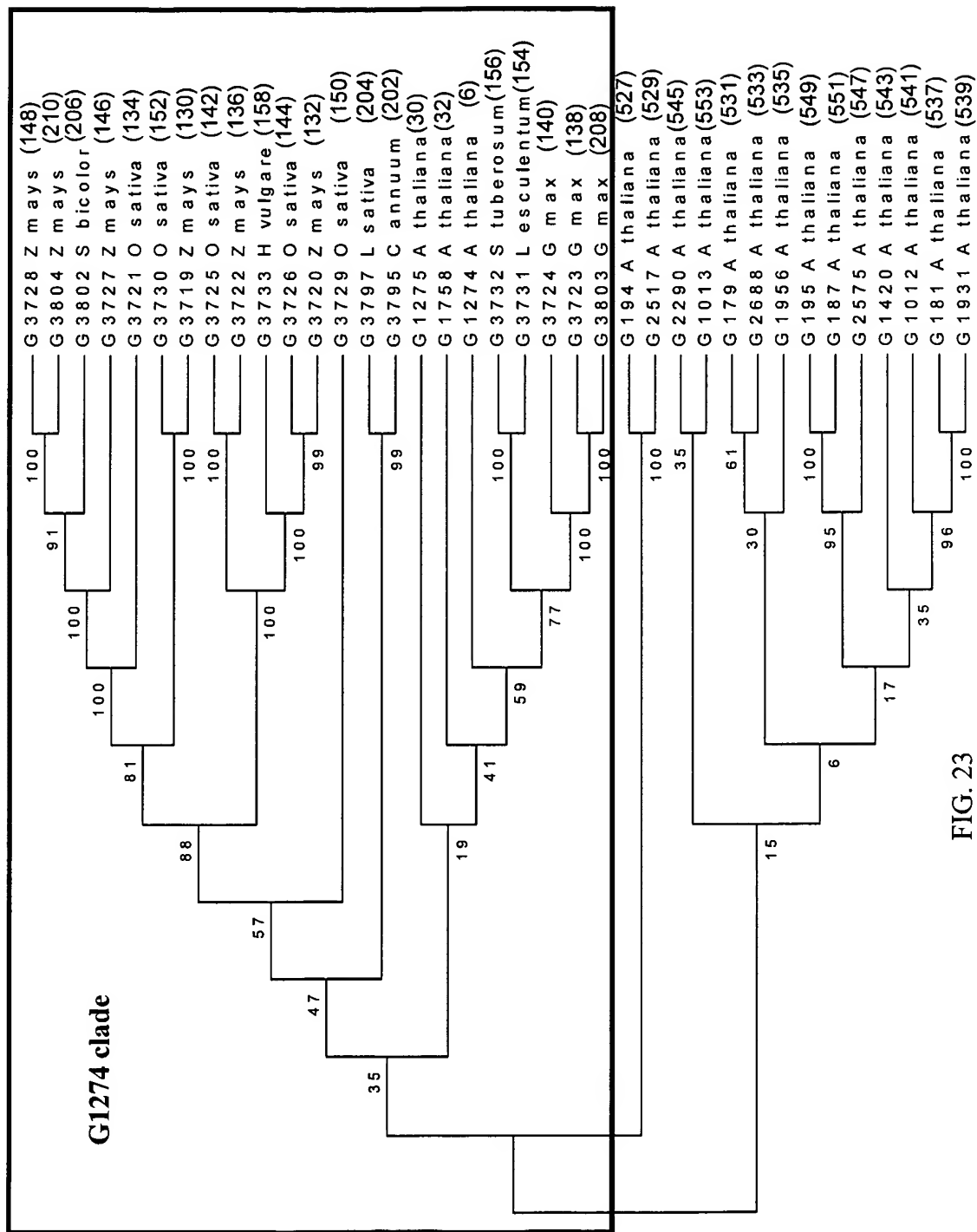


FIG. 23

FIG. 24

	10	20	30
G3809_O_sativa (593)	M	A	V
pG3807_O_sativa(594)	E	E	A
pG521 (595)	I	K	C
pG3041 (596)	L	E	N
pG3832 (partial) (592)	L	E	S
pG515 (20)	G	E	A
pG2053 (10)	S	L	E
pG516 (22)	Q	R	V
pG517 (24)	R		
pG513 (597)			
pG960 (598)			
pG3834_B_rapa (599)			
pG1455 (600)			
pG3805_O_sativa (601)			
pG958 (602)			
pG1924 (603)			
pG518 (604)			
pG3808_O_sativa (605)			
pG3833_G_max (606)			
pG523 (607)			
pG514 (608)			
pG3806_O_sativa (609)			
pG526 (610)			
pG1454 (611)			

M R L A R Q Q Q V V V A A

M

FIG. 27A

	40	50	60
G3809_O_sativa (593)	P	A	G
pG3807_O_sativa (594)	G	A	G
pG521 (595)	I	T	H
pG3041 (596)	L	M	F
pG3832 (partial) (592)	P	M	F
pG515 (20)	S	G	R
pG2053 (10)	I	S	R
pG516 (22)	L	T	F
pG517 (24)	P	V	F
pG513 (597)	A	T	R
pG960 (598)	A	S	R
pG3834_B_rapa (599)	S	M	R
pG1455 (600)	I	E	F
pG3805_O_sativa (601)	K	V	F
pG958 (602)	N	L	R
pG1924 (603)	K	S	R
pG518 (604)	T	M	R
pG3808_O_sativa (605)	L	E	F
pG3833_G_max (606)	P	A	F
pG523 (607)	E	P	F
pG514 (608)	H	V	F
pG3806_O_sativa (609)	D	S	F
pG526 (610)	V	E	F
pG1454 (611)	E	E	F
(695)	E	E	F

FIG. 27B

FIG. 27C

G3809_O_sativa (593)	A	E	V	D	I	Y	K	Y	N	P	W	E	L	P	A	M	A	-	V	F	G	E	S	D	G	E	W	Y	F	F	120
pG3807_O_sativa (594)	S	E	L	D	L	Y	K	F	A	P	W	D	L	P	E	K	S	-	S	L	Q	S	K	D	R	E	W	Y	F	F	
pG521 (595)	A	E	V	D	I	Y	K	F	E	P	W	D	L	P	D	K	S	-	C	L	G	T	G	L	K	E	W	Y	F	F	
pG3041 (596)	S	V	T	D	V	Y	K	S	E	P	W	D	L	P	D	K	S	-	R	L	K	S	R	D	L	E	W	Y	F	F	
pG3832 (partial) (592)	N	T	V	D	I	C	N	L	D	P	W	E	L	P	R	K	S	S	R	I	A	S	S	D	Q	V	W	Y	F	F	
pG515 (20)	N	T	V	P	V	C	R	L	D	P	W	E	L	P	C	Q	S	-	R	I	K	L	K	D	V	A	W	C	F	F	
pG2053 (10)	S	T	V	T	I	R	S	F	D	P	W	E	L	P	C	Q	S	-	R	I	K	L	K	D	E	S	W	C	F	F	
pG516 (22)	S	T	V	D	I	C	S	F	D	P	W	D	L	P	S	H	S	-	R	M	K	T	R	D	Q	V	W	Y	F	F	
pG517 (24)	S	T	V	D	I	C	S	F	E	P	W	D	L	P	S	K	S	-	M	I	K	S	R	D	G	V	W	Y	F	F	
pG513 (597)	R	E	I	D	I	C	K	W	E	P	W	D	L	P	D	F	S	-	V	V	K	T	D	S	E	W	L	F	F		
pG960 (598)	P	D	I	D	V	C	K	W	E	P	W	D	L	P	A	L	S	-	V	I	K	T	D	P	E	W	F	F	F	F	
pG3834_B_rapa (599)	P	E	I	D	V	C	K	W	E	P	W	D	L	P	G	L	S	-	V	I	K	T	D	Q	E	W	F	F	F	F	
pG1455 (600)	P	E	I	D	V	C	K	W	E	P	W	D	L	P	G	L	S	-	V	I	K	T	D	Q	E	W	F	F	F	F	
pG3805_O_sativa (601)	P	E	V	D	L	Y	K	C	E	P	W	D	L	P	E	K	S	-	F	L	P	S	K	D	L	E	W	Y	F	F	
pG958 (602)	P	E	I	D	L	Y	K	C	E	P	W	D	L	P	E	K	S	-	L	L	P	S	K	D	L	E	W	F	F	F	
pG1924 (603)	P	E	I	D	L	Y	K	C	E	P	W	D	L	P	E	K	S	-	L	L	P	S	K	D	L	E	W	F	F	F	
pG518 (604)	P	E	V	D	L	Y	K	C	E	P	W	D	L	P	A	K	S	-	L	L	P	S	K	D	Q	E	W	Y	F	F	
pG3808_O_sativa (605)	G	E	A	D	L	N	K	C	E	P	W	D	L	P	S	R	A	-	T	M	G	E	K	-	-	E	W	Y	F	F	
pG3833_G_max (606)	G	E	V	D	L	N	R	S	E	P	W	D	L	P	W	K	A	-	K	M	G	E	K	-	-	E	W	Y	F	F	
pG523 (607)	G	E	V	D	L	N	K	A	E	P	W	E	L	P	Y	K	A	-	K	I	G	E	K	-	-	E	W	Y	F	F	
pG514 (608)	G	E	V	D	L	N	K	S	E	P	W	E	L	P	W	M	A	-	K	M	G	E	K	-	-	E	W	Y	F	F	
pG3806_O_sativa (609)	A	D	V	N	L	N	N	C	E	P	W	D	L	P	S	K	A	-	K	M	G	E	K	-	-	E	W	F	F	F	
pG526 (610)	G	E	A	D	L	N	K	C	E	P	W	D	L	P	K	R	A	-	K	M	G	E	K	-	-	E	F	Y	F	F	
pG1454 (611)	A	E	V	D	L	Y	K	F	D	P	W	E	L	P	A	K	A	-	S	F	G	E	Q	-	-	E	W	Y	F	F	
(696) (697) (698)	E	V	D	L	K	E	P	W	D	L	P	K	S													E	W	Y	F	F	

FIG. 27D

G3809_O_sativa (593)	S	P	R	D	R	K	Y	P	N	G	V	R	P	N	R	A	A	G	S	G	Y	W	K	A	T	G	T	D	K	P	
pG3807_O_sativa (594)	C	P	R	D	R	K	Y	S	S	G	S	R	T	N	R	S	T	E	A	G	G	Y	W	K	A	T	G	K	D	R	P
pG521 (595)	C	P	R	E	K	K	Y	P	K	G	G	K	A	N	R	S	T	E	C	G	Y	W	K	T	T	G	R	D	R	E	E
pG3041 (596)	S	M	L	D	K	K	Y	R	N	G	S	K	T	N	R	A	T	E	M	G	Y	W	K	T	T	G	K	D	R	E	P
pG3832 (partial) (592)	G	R	K	E	S	R	Y	N	R	G	E	R	Q	K	R	K	T	K	S	S	G	Y	W	K	T	G	N	T	L	P	
pG515 (20)	R	P	K	E	N	K	Y	G	R	G	D	Q	Q	M	R	K	T	K	S	S	G	F	W	K	T	G	R	P	K	P	
pG2053 (10)	S	P	K	E	N	K	Y	G	R	G	D	Q	Q	I	R	K	T	K	S	S	G	Y	W	K	T	G	K	P	K	P	
pG516 (22)	G	R	K	E	N	K	Y	G	K	G	D	R	Q	I	R	K	T	K	S	S	G	F	W	K	T	G	V	T	M	D	
pG517 (24)	S	V	K	E	M	K	Y	N	R	G	D	Q	Q	R	R	R	T	N	S	S	G	F	W	K	T	G	K	T	M	T	
pG513 (597)	C	P	L	D	R	K	Y	P	S	G	S	R	M	N	R	A	T	V	A	G	Y	W	K	A	T	G	K	D	R	S	K
pG960 (598)	C	P	R	D	R	K	Y	P	N	G	H	R	S	N	R	A	T	D	S	S	G	Y	W	K	A	T	G	K	D	R	T
pG3834_B_rapa (599)	C	P	R	D	R	K	Y	P	S	G	H	R	S	N	R	A	T	D	I	G	Y	W	K	A	T	G	K	D	R	T	T
pG1455 (600)	C	P	R	D	R	K	Y	P	S	G	H	R	S	N	R	A	T	D	I	G	Y	W	K	A	T	G	K	D	R	T	K
pG3805_O_sativa (601)	S	P	R	D	R	K	Y	P	N	G	S	R	T	N	R	A	T	K	A	G	Y	W	K	A	T	G	K	D	R	K	K
pG958 (602)	S	P	R	D	R	K	Y	P	N	G	S	R	T	N	R	A	T	K	A	G	Y	W	K	A	T	G	K	D	R	K	R
pG1924 (603)	G	P	R	D	R	K	Y	P	N	G	F	R	T	N	R	A	T	R	G	G	Y	W	K	A	T	G	K	D	R	R	R
pG518 (604)	S	P	R	D	R	K	Y	P	N	G	S	R	T	N	R	A	T	K	G	G	Y	W	K	A	T	G	K	D	R	R	E
pG3808_O_sativa (605)	C	V	K	D	R	K	Y	P	T	G	L	R	T	N	R	A	T	E	S	S	G	Y	W	K	A	T	G	K	D	R	E
pG3833_G_max (606)	C	V	R	D	R	K	Y	P	T	G	L	R	T	N	R	A	T	E	S	S	G	Y	W	K	A	T	G	K	D	K	E
pG523 (607)	C	V	R	D	R	K	Y	P	T	G	L	R	T	N	R	A	T	Q	A	S	G	Y	W	K	A	T	G	K	D	K	E
pG514 (608)	C	V	R	D	R	K	Y	P	T	G	L	R	T	N	R	A	T	E	A	S	G	Y	W	K	A	T	G	K	D	K	E
pG3806_O_sativa (609)	C	H	K	D	R	K	Y	P	T	G	M	R	T	N	R	A	T	A	S	S	G	Y	W	K	A	T	G	K	D	K	E
pG526 (610)	C	Q	R	D	R	K	Y	P	T	G	M	R	T	N	R	A	T	E	S	S	G	Y	W	K	A	T	G	K	D	K	E
pG1454 (611)	S	P	R	D	R	K	Y	P	N	G	A	R	P	N	R	A	T	T	S	S	G	Y	W	K	A	T	G	T	D	K	P
(698) (699) (700)	C	P	R	D	R	K	Y	P	G	G	R	T	N	R	A	T	T	T	S	S	G	Y	W	K	A	T	G	K	D	R	

FIG. 27E

G3809_O_sativa (593)	I	S	I	S	E	T	Q	Q	T	V	L	L	G	V	K	K	A	L	V	F	Y	R	G	R	P	P	K	G	T	K	
pG3807_O_sativa (594)	V	I	Y	N	-	-	-	-	S	Q	T	V	G	M	K	R	T	L	V	F	H	L	G	K	P	P	R	G	D	R	
pG521 (595)	V	S	Y	N	-	-	-	-	D	E	V	T	G	K	I	R	T	L	I	Y	H	Y	G	K	I	P	R	G	D	R	
pG3041 (596)	I	L	N	G	-	-	-	-	S	K	V	V	G	M	K	K	T	L	V	Y	H	K	G	R	A	P	R	G	E	R	
pG3832 (partial) (592)	I	T	R	K	R	-	G	N	H	E	T	I	G	E	K	R	V	L	M	F	Y	M	S	G	S	R	-	-	-	-	
pG515 (20)	I	M	R	-	-	-	-	-	N	R	Q	Q	I	G	E	K	K	I	L	M	F	Y	T	S	K	E	S	-	-	-	K
pG2053 (10)	I	L	R	-	-	-	-	-	N	R	Q	E	I	G	E	K	K	V	L	M	F	Y	M	S	K	E	L	G	S	-	K
pG516 (22)	I	M	R	K	T	-	G	D	R	E	K	I	G	E	K	R	V	L	V	F	K	N	H	G	S	-	-	-	-	-	K
pG517 (24)	V	M	R	K	R	-	G	N	R	E	K	I	G	E	K	R	V	L	V	F	K	N	R	D	G	S	-	-	-	-	K
pG513 (597)	I	K	S	G	-	-	-	-	K	T	K	I	I	G	V	K	R	T	L	V	F	Y	T	G	R	A	P	K	G	T	R
pG960 (598)	I	K	S	-	-	-	-	-	K	K	T	L	I	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	K	G	E	R
pG3834_B_rapa (599)	I	K	S	-	-	-	-	-	K	K	M	I	I	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	I	G	E	R
pG1455 (600)	I	K	S	-	-	-	-	-	K	K	M	I	I	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	I	G	E	R
pG3805_O_sativa (601)	V	N	S	Q	-	-	-	-	R	-	R	A	V	G	M	K	K	T	L	V	Y	Y	R	G	R	A	P	H	G	S	R
pG958 (602)	V	T	S	H	-	-	-	-	S	-	R	M	V	G	T	K	K	T	L	V	Y	Y	R	G	R	A	P	H	G	S	R
pG1924 (603)	V	T	S	Q	-	-	-	-	S	-	R	A	I	G	M	K	K	T	L	V	Y	Y	R	G	R	A	P	Q	G	I	R
pG518 (604)	V	S	W	R	-	-	-	-	D	-	R	A	I	G	T	K	K	T	L	V	Y	Y	R	G	R	A	P	H	G	I	R
pG3808_O_sativa (605)	I	F	R	G	-	-	-	-	K	-	A	L	V	G	M	K	K	T	L	V	F	Y	T	G	R	A	P	R	G	E	K
pG3833_G_max (606)	I	F	R	G	-	-	-	-	K	-	S	L	V	G	M	K	K	T	L	V	F	Y	K	G	R	A	P	K	G	E	K
pG523 (607)	I	F	R	G	-	-	-	-	K	-	S	L	V	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	K	G	Q	K
pG514 (608)	I	Y	R	G	-	-	-	-	K	-	S	L	V	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	K	G	Q	K
pG3806_O_sativa (609)	I	F	R	G	-	-	-	-	R	G	L	L	V	G	M	K	K	T	L	V	F	Y	M	G	R	A	P	R	G	E	K
pG526 (610)	I	F	K	G	-	-	-	-	K	G	C	L	V	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	R	G	E	K
pG1454 (611)	V	L	A	S	D	-	-	-	G	N	Q	K	V	G	V	K	K	A	L	V	F	Y	S	G	K	P	P	K	G	V	K
(701) (702)	I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	K

FIG. 27F

G3809_O_sativa (593)
pG3807_O_sativa (594)
pG521 (595)
pG3041 (596)
pG3832 (partial) (592)
pG515 (20)
pG2053 (10)
pG516 (22)
pG517 (24)
pG513 (597)
pG960 (598)
pG3834_B_rapa (599)
pG1455 (600)
pG3805_O_sativa (601)
pG958 (602)
pG1924 (603)
pG518 (604)
pG3808_O_sativa (605)
pG3833_G_max (606)
pG523 (607)
pG514 (608)
pG3806_O_sativa (609)
pG526 (610)
pG1454 (611)
(703)

190										200										210									
T	S	W	I	M	H	E	Y	R	L	A	N	A	A	S	S	S	S	S	-	-	-	-	-	-	-	-	-	-	
T	D	W	V	M	Y	E	Y	R	L	E	D	K	E	L	S	A	S	G	V	K	-	-	-	-	-	-	-	-	
T	D	W	V	I	H	E	Y	R	L	E	D	K	V	L	A	Q	K	N	V	P	-	-	-	-	-	-	-	-	
T	N	W	V	M	H	E	Y	R	L	V	D	Q	D	L	D	K	T	G	V	H	-	-	-	-	-	-	-	-	
S	N	W	V	M	H	E	Y	H	A	S	C	L	S	P	N	D	-	-	-	-	-	-	-	-	-	-	-	-	
S	D	W	V	I	H	E	Y	H	G	F	S	H	N	Q	M	M	M	T	-	Y	-	-	-	-	-	-	-	-	
S	D	W	V	M	H	E	Y	H	A	F	S	P	T	Q	M	M	M	T	-	Y	-	-	-	-	-	-	-	-	
S	D	W	A	M	H	E	Y	H	A	T	F	S	S	P	N	Q	-	-	-	-	-	-	-	-	-	-	-	-	
T	D	W	V	M	H	E	Y	H	A	T	S	L	F	P	N	Q	M	M	T	Y	-	-	-	-	-	-	-	-	
T	C	W	I	M	H	E	Y	R	A	T	E	K	D	L	D	G	T	K	S	G	-	-	-	-	-	-	-	-	
T	N	W	I	M	H	E	Y	R	P	T	L	K	D	L	D	G	T	S	P	G	-	-	-	-	-	-	-	-	
T	N	W	I	M	H	E	Y	R	A	T	D	K	D	L	D	G	T	G	P	G	-	-	-	-	-	-	-	-	
T	N	W	I	M	H	E	Y	R	A	T	D	K	E	L	D	G	T	G	P	G	-	-	-	-	-	-	-	-	
T	D	W	V	M	H	E	Y	R	L	D	E	R	E	C	E	-	T	D	T	G	-	-	-	-	-	-	-	-	
T	D	W	V	M	H	E	Y	R	L	D	E	Q	E	C	D	-	S	K	S	G	-	-	-	-	-	-	-	-	
T	D	W	V	M	H	E	Y	R	L	D	D	E	C	C	D	-	D	P	S	S	-	-	-	-	-	-	-	-	
T	G	W	V	M	H	E	Y	R	L	D	E	S	E	C	E	-	P	S	A	F	G	M	Q	-	-	-	-	-	
T	G	W	V	M	H	E	Y	R	I	H	G	K	H	A	A	N	S	K	Q	-	-	-	-	-	-	-	-	-	
T	D	W	V	M	H	E	Y	R	L	D	G	K	F	S	F	H	T	L	P	K	T	A	K	-	-	-	-	-	
T	N	W	V	M	H	E	Y	R	L	D	G	K	L	S	A	H	N	L	P	K	T	A	K	-	-	-	-	-	
T	N	W	V	M	H	E	Y	R	L	D	E	G	K	F	S	A	H	N	L	P	K	T	A	K	-	-	-	-	
T	P	W	V	M	H	E	Y	R	L	D	G	K	L	P	P	-	N	L	P	R	S	A	K	-	-	-	-	-	
T	N	W	V	M	H	E	Y	R	L	D	E	G	K	Y	S	Y	N	L	P	K	S	A	R	-	-	-	-	-	
S	D	W	I	M	H	E	Y	R	L	I	E	N	K	P	N	N	R	P	P	G	C	D	F	G	N	K	K	N	S
T	W	V	M	H	E	Y	R	L	K																				

FIG. 27G

FIG. 27H

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		280	290	300
G3809_O_sativa (593)	L C R I Y K	- - - - -	- - - - -	- - - - - K K
pG3807_O_sativa (594)	E A N G E L S	- - - - -	- - - - -	- - - - - F A
pG521 (595)	D K E E E	- - - - -	- - - - -	- - - - -
pG3041 (596)	E E D D M T F V P D	- - - - -	- - - - -	- - - - - Q E D L
pG3832 (partial) (592)	- - - - -	- - - - -	- - - - -	- - - - -
pG515 (20)	Q S R R D	- - - - -	- - - - -	- - - - -
pG2053 (10)	Q S R - D	- - - - -	- - - - -	- - - - -
pG516 (22)	H T H - -	- - - - -	- - - - -	- - - - -
pG517 (24)	Q I H - -	- - - - -	- - - - -	- - - - -
pG513 (597)	M S E V S P V F P	- - - - -	- - - - -	- - - - - K T
pG960 (598)	S D L V Q E T P S S	- - - - -	- - - - -	- - - - - D A
pG3834_B_rapa (599)	S E M V Q E T D T S	- - - - -	- - - - -	- - - - - R V
pG1455 (600)	S E M V Q E T A T S	- - - - -	- - - - -	- - - - - G V
pG3805_O_sativa (601)	S S S F S F P T E T P M D S M H G G F G M Q M S A P H E D G	- - - - -	- - - - -	- - - - -
pG958 (602)	N S G Y P V S P E T G G L T Q L G N N S S S D M E T I E N -	- - - - -	- - - - -	- - - - -
pG1924 (603)	S E R - - - -	- - - - -	- - - - -	- - - - -
pG518 (604)	I S S N T P Y N T A A H I Q P R F G N A N A - - I S D H D -	- - - - -	- - - - -	- - - - -
pG3808_O_sativa (605)	T D V G P - - - -	- - - - -	- - - - -	- - - - -
pG3833_G_max (606)	N E M V Y - - - -	- - - - -	- - - - -	- - - - - S S
pG523 (607)	T G S S - - - -	- - - - -	- - - - -	- - - - -
pG514 (608)	T D F N P - - - -	- - - - -	- - - - -	- - - - - S -
pG3806_O_sativa (609)	R N D S F - - - -	- - - - -	- - - - -	- - - - - D L
pG526 (610)	R M D - - - -	- - - - -	- - - - -	- - - - - S L
pG1454 (611)	F R K I P - - - -	- - - - -	- - - - -	- - - - -

FIG. 27J

G3809_O_sativa	(593)	E	A	N	Q	Q	L	Q	H	Y	I	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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FIG. 27K

	370	380	390
G3809_O_sativa (593)	- - - - -	- - - - -	- - - - -
pG3807_O_sativa (594)	K I A V G G C G - - - - -	- - - - -	- - - - -
pG521 (595)	- - - - -	- - - - -	- - - - -
pG3041 (596)	Y I Q Q T G N Y M D S G G Y F E Q P A E S Y E - - - - -	- - - - -	- - - - -
pG3832 (partial) (592)	- - - - -	- - - - -	- - - - -
pG515 (20)	K W L M N D - - - - -	- - - - -	- - - - -
pG2053 (10)	- - - - -	- - - - -	- - - - -
pG516 (22)	F L D V D A - - - - -	- - - - -	- - - - -
pG517 (24)	F A N V Q G - - - - -	- - - - -	- - - - -
pG513 (597)	- - - - -	S P K L F S P - - - - -	- - - - -
pG960 (598)	- - - - -	Q K A P L P - - - - -	- - - - -
pG3834_B_rapa (599)	- - - - -	- - - - -	- - - - -
pG1455 (600)	L L R D V P T L H G P I L S E K S Y Y P G Q - - - - -	- - - - -	- - - - -
pG3805_O_sativa (601)	L E V E D F P Q D V S L D T K I G I L R S N P N E V D I L Q	- - - - -	- - - - -
pG958 (602)	P P L Y V E G L T H N E Y F G N N V A N D T - - - - -	- - - - -	- - - - -
pG1924 (603)	- - - - -	- - - - -	- - - - -
pG518 (604)	L R V E N S Q A Q T S D F S K R - - - - -	- - - - -	- - - - -
pG3808_O_sativa (605)	- - - - -	- - - - -	- - - - -
pG3833_G_max (606)	G - - - - -	- - - - -	I - - - -
pG523 (607)	- - - - -	- - - - -	- - - - -
pG514 (608)	- - - - -	- - - - -	- - - - -
pG3806_O_sativa (609)	- - - - -	- - - - -	- - - - -
pG526 (610)	- - - - -	- - - - -	- - - - -
pG1454 (611)	- - - - -	- - - - -	- - - - -

FIG. 27M

G3809_O_sativa (593)	430										440										450													
pG3807_O_sativa (594)	Q	S	H	R	M	P	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P		
pG521 (595)	C	F	S	T	D	L	L	N	S	V	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	D	G		
pG3041 (596)	D	V	P	P	L	T	A	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	V	L	P		
pG3832 (partial) (592)	D	K	H	S	E	T	L	Q	S	S	D	-	-	-	-	-	-	-	-	-	-	N	I	F	G	T	D	T	S	-	-	-		
pG515 (20)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
pG2053 (10)	D	I	D	D	A	K	E	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	S	I	M			
pG516 (22)	D	D	G	V	D	E	Q	V	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	H	I	M		
pG517 (24)	D	D	-	D	E	Q	S	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	I	V		
pG513 (597)	N	D	G	D	E	Q	R	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	I	M		
pG960 (598)	G	L	Q	S	E	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
pG3834_B_rapa (599)	G	F	Q	F	Q	D	G	T	S	-	-	-	-	-	-	-	-	-	-	-	-	E	P	D	V	S	L	T	E	-	-	-		
pG1455 (600)	G	L	H	F	Q	D	G	A	S	-	-	-	-	-	-	-	-	-	-	-	-	E	Q	D	A	S	L	T	D	-	-	-		
pG3805_O_sativa (601)	S	A	S	Y	V	N	E	L	S	S	L	V	E	M	G	G	V	G	T	S	N	H	H	E	S	A	R	L	Q	V	-	-	-	
pG958 (602)	N	F	H	G	D	F	N	Y	S	G	E	K	V	S	C	-	-	-	-	-	-	-	L	E	A	N	V	E	A	V	-	-	-	
pG1924 (603)	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
pG518 (604)	N	Q	F	Y	N	S	N	V	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
pG3808_O_sativa (605)	P	A	A	H	V	T	C	F	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
pG3833_G_max (606)	T	L	Y	G	V	S	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	H	S	
pG523 (607)	I	Q	P	D	F	L	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	I	P	
pG514 (608)	I	Q	A	D	I	F	H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	I	P	
pG3806_O_sativa (609)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG526 (610)	S	S	P	I	Q	P	H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	H	F	N	
pG1454 (611)	D	G	G	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	I	N

FIG. 270

	670	680	690
G3809_O_satva (593)	- - - - -	- - - - -	- - - - - S T Q I N
pG3807_O_satva (594)	- - - - -	- - - - -	- - - - - D Q N H P E L
pG521 (595)	- - - - -	- - - - -	- - - - - V V E L Q D L I Q S
pG3041 (596)	- - - - -	- - - - -	- - - - - A I P A P L A N A S E F
pG3832 (partial) (592)			
pG515 (20)	- - - - -	- - - - -	- - - - - P Y D D A Q G T E I G
pG2053 (10)	- - - - -	- - - - -	- - - - - P Y D D A Q G T G A G
pG516 (22)	- - - - -	- - - - -	- - - - - A Q G T E I G
pG517 (24)	- - - - -	- - - - -	- - - - - Q V T V I R
pG513 (597)	- - - - -	- - - - -	- - - - - D S T Q L Q F I K K E
pG960 (598)	- - - - -	- - - - -	- - - - - E E V N E G H T V I P E
pG3834_B_rapa (599)			
pG1455 (600)	- - - - -	- - - - -	- - - - - E E E D E V Q S A M S K
pG3805_O_satva (601)	S I F S K F K A L I R	- - - - -	- - - - - D K F L M M R
pG958 (602)	R I N G V S S T V L G Q W R K F A H V I G F I P M L L L M R		
pG1924 (603)	- - - - -	- - - - -	- - - - - W M Q
pG518 (604)	- - - - -	- - - - -	- - - - - E E R T M L M E
pG3808_O_satva (605)	- - - - -	- - - - -	- - - - - L T S S
pG3833_G_max (606)	- - - - -	- - - - -	- - - - - A A A V A
pG523 (607)	- - - - -	- - - - -	- - - - - S P S S G
pG514 (608)	- - - - -	- - - - -	- - - - - S S S T G
pG3806_O_satva (609)	- - - - -	- - - - -	- - - - - L L S F P D S
pG526 (610)	- - - - -	- - - - -	- - - - - S K S Y E D L
pG1454 (611)	- - - - -	- - - - -	- - - - - M S S S M M E

FIG. 27W

	700	710	720
G3809_O_sativa (593)	F S S I F E P - - - - -	- - - - -	- - - - -
pG3807_O_sativa (594)	E T R F E Q G S - - - - -	- - - - -	- - - - -
pG521 (595)	P T P H P P - - - - -	- - - - -	- - - - -
pG3041 (596)	P T K D A A I R L H A A Q S S - - - - -	- - - - -	- - - - -
pG3832 (partial) (592)			
pG515 (20)	E H K L G Q E T - - - - -	- - - - -	- - - - -
pG2053 (10)	G Q K L G Q E T - - - - -	- - - - -	- - - - -
pG516 (22)	E H K L G Q E T - - - - -	- - - - -	- - - - -
pG517 (24)	E H K L G E E S - - - - -	- - - - -	- - - - -
pG513 (597)	V K D T T E T M T K G C G - - - - -	- - - - -	- - - - -
pG960 (598)	A K E A A A K Y S E K S G S - - - - -	- - - - -	- - - - -
pG3834_B_rapa (599)			
pG1455 (600)	V V E E E P A N L S A Q G T A - - - - -	- - - - -	Q R R I R L
pG3805_O_sativa (601)	P S H S Y Q R L G S K E T T V N E L L Q I V S L L A P K Q	- - - - -	- - - - -
pG958 (602)	C V H R G N S N K N R - - - - -	- - - - -	G S E G Y S R Q P T
pG1924 (603)	F I T D D A - - - - -	- - - - -	- - - - -
pG518 (604)	E D S D D S - - - - -	- - - - -	- - - - -
pG3808_O_sativa (605)	E V N P G E - - - - -	- - - - -	- - - - -
pG3833_G_max (606)	P M D L A T - - - - -	- - - - -	- - - - -
pG523 (607)	P V D L E P - - - - -	- - - - -	- - - - -
pG514 (608)	P V D L E P - - - - -	- - - - -	- - - - -
pG3806_O_sativa (609)	I T D Y S Y - - - - -	- - - - -	- - - - -
pG526 (610)	C D L R G D - - - - -	- - - - -	- - - - -
pG1454 (611)	E T P P L M Q - - - - -	- - - - -	- - - - -

FIG. 27X

G3809_O_sativa (593)	H Q L M S S H N D D T S I	760	770	780
pG3807_O_sativa (594)	A T I S N A C S A S T V G D H V T			
pG521 (595)	D - - D S R S N G Q T K D D			
pG3041 (596)	L D L I L S L G L V Q G N T A P E K S G N S S A W A M L I F			
pG3832 (partial) (592)				
pG515 (20)	H R M I Q K F V K K I H L C S S I S R T			
pG2053 (10)	H R M I Q I F V K K I H Q C S S I S R T			
pG516 (22)	H R M I Q K F V K K I H L R T			
pG517 (24)	Y R M I H R L V K K I H Q C Y S I S R T			
pG513 (597)	S F I F K K I A A M G C S Y R G L F R V G - - - - -			
pG960 (598)	E R F A D D E V Q V Q S T K R E R - - - - -			
pG3834_B_rapa (599)				
pG1455 (600)	E M Q E K E D I S S S S W Q K Q K K S L V Q F S S V V I I			
pG3805_O_sativa (601)	L W L P L S K G K G I S S M F L S G K W T - - - - -			
pG958 (602)	- - M V D E Q G F R F Q D S F V L K K L G - - - - -			
pG1924 (603)	- - - - A A M G H G Q G V Y			
pG518 (604)	- - - - V A K M K L K Q I S L V A K R Y Y - - - - -			
pG3808_O_sativa (605)	A W I I T T R P S G P I E I F I H H H			
pG3833_G_max (606)				
pG523 (607)				
pG514 (608)				
pG3806_O_sativa (609)				
pG526 (610)				
pG1454 (611)	D G L F R T T S Y Q L P G L N W Y S S			

FIG. 27Z

FIG. 27AA

820 830 840

G3809_O_sativa (593)
pG3807_O_sativa (594)
pG521 (595)
pG3041 (596)
pG3832 (partial) (592)
pG515 (20)
pG2053 (10)
pG516 (22)
pG517 (24)
pG513 (597)
pG960 (598)
pG3834_B_rapa (599)
pG1455 (600)
pG3805_O_sativa (601)
pG958 (602)
pG1924 (603)
pG518 (604)
pG3808_O_sativa (605)
pG3833_G_max (606)
pG523 (607)
pG514 (608)
pG3806_O_sativa (609)
pG526 (610)
pG1454 (611)

G M F T

FIG. 27BB

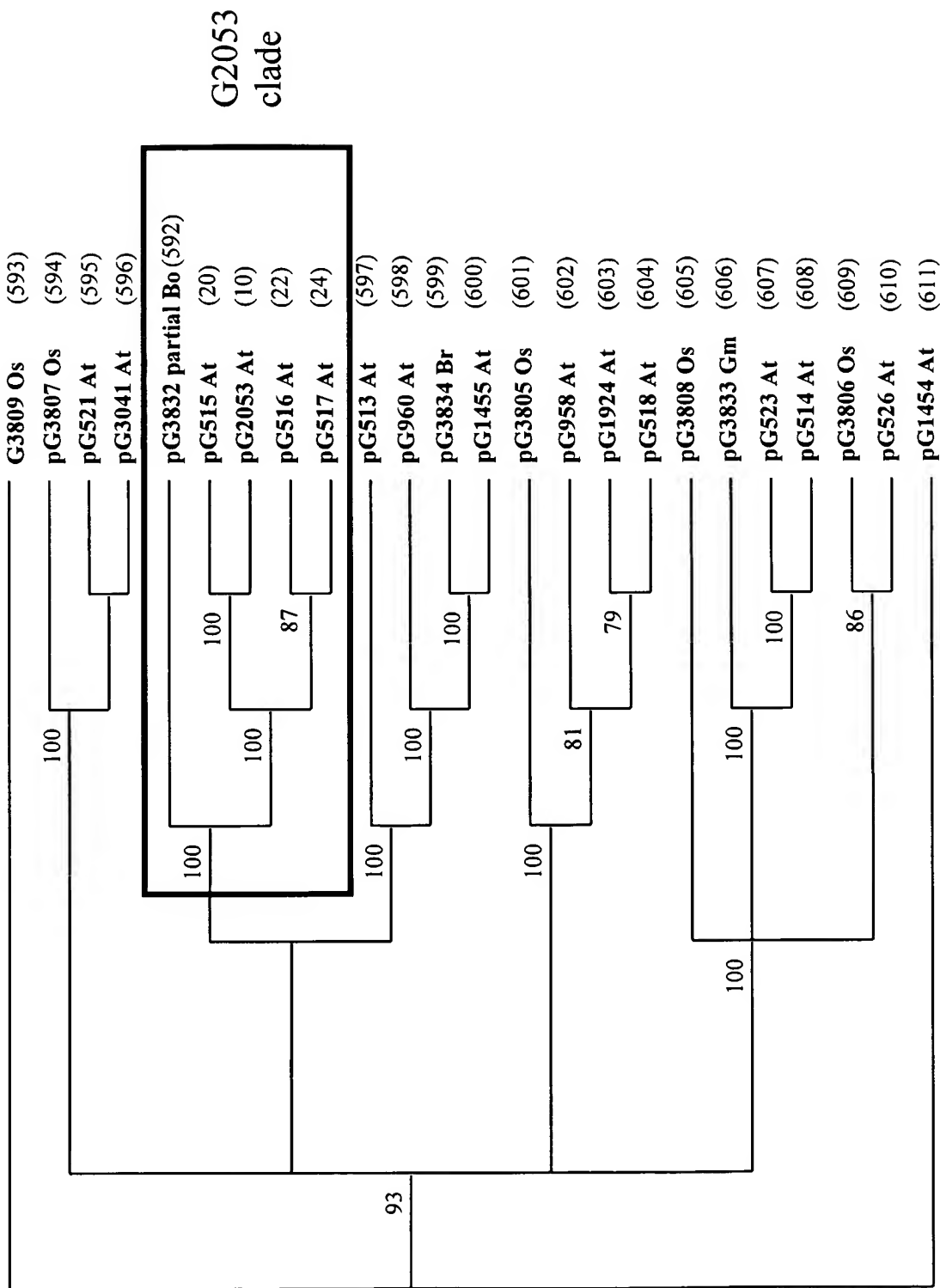


FIG. 28